BY THE SAME AUTHOR

PRINCIPLES OF PUBLIC FINANCE

TOWARDS THE PEACE OF NATIONS

WITH OTHER AUTHORS

UNBALANCED BUDGETS: A Study of the Financial Crisis in Fifteen Countries

Some Aspects of The Inequality of Incomes in Modern Communities

BY

HUGH DALTON, P.C., M.A., D.Sc. (Econ.)

Sometime Reader in Economics
in the University of London

FIFTH IMPRESSION
with an Appendix on "The Measurement
of the Inequality of Incomes."

LONDON
ROUTLEDGE & KEGAN PAUL LTD
BROADWAY HOUSE: 68–74 CARTER LANE, E.C.4

First Published 1920
Second Edition (with an Appendix) 1925
Third Impression 1929
Fourth Impression 1935
Fifth Impression 1949

PRINTED IN GREAT BRITAIN BY
LUND HUMPHRIES
LONDON · BRADFORD

ἰσότητα δ' αἱροῦ καὶ πλεονεξίαν φύγε.

MENANDER.

"*The drift of economic science during many generations has been with increasing force towards the belief that there is no real necessity, and therefore no moral justification, for extreme poverty side by side with great wealth.*"

MARSHALL.

"*On aperçoit dans le commencement de l'humanité le commencement de son mal. La racine de l'abus, c'est l'héritage. . . . C'est jusque-là, jusqu'au droit monstrueux des morts, qu'il faut tracer une ligne droite et nettoyer les ténèbres. La transmission des biens et des pouvoirs, quels qu'ils soient, des morts à leurs descendants, n'est pas conforme à la raison et à la morale. . . . Chacun doit occuper dans la destinée commune une situation due à ses œuvres et non au hasard. . . . L'héritage, forme concrète et palpable de la tradition. . . .*"

BARBUSSE, *Clarté*.

PREFACE

WHILE studying economics at Cambridge in 1909–10, I became specially interested in those books, or parts of books, which set out to discuss the distribution of income. I gradually noticed, however, that most "theories of distribution" were almost wholly concerned with distribution as between "factors of production." Distribution as between persons, a problem of more direct and obvious interest, was either left out of the textbooks altogether, or treated so briefly, as to suggest that it raised no question, which could not be answered either by generalisations about the factors of production, or by plodding statistical investigations, which professors of economic theory were content to leave to lesser men.

This state of things appeared to me to be very unsatisfactory, and my opinion was strengthened, when I read certain criticisms by Professor Cannan upon existing theories of distribution and still more when, at a later stage, I came into personal contact with his teaching in London.

In 1911 I was elected to the Hutchinson Research Studentship at the London School of Economics, and began a study of the causes of the inequality of incomes in modern communities, with special reference to the effects of inherited wealth. But this scheme gradually broadened in several directions. In the first place I was led to examine more closely the historical development of the theory of distribution.

In the second place, as a preliminary to, and as a partial basis of, my main enquiry, I attempted to extend the existing theory regarding the division of the total income of a community between different categories and, in particular, between different factors of production. In the third place, I attempted to compare statistically the inequality of incomes in different communities. Here I was struck, on the one hand, by the inadequacy of the available statistics, and on the other by the ambiguity of the conception of "inequality," and the need to give it, with special reference to incomes, a more precise definition and a logical measure. For many of the measures proposed by writers on the subject seemed empirical, ill-supported by argument, and sometimes even contradictory in their results. In the fourth place, I tried to reach definite conclusions regarding various proposals designed to reduce inequality without injury to productive power.

By the summer of 1914 I had completed the first two Parts of the book as it now stands, and collected a considerable amount of material for the remaining Parts. After the outbreak of war my work was interrupted by more than four years of military service, and I was not free to take it up again till May, 1919. With a view to early publication, I then recast my scheme, putting aside a large quantity of the material which I had hoped to use. In particular, I have dropped out all discussion of the measurement of inequality, on which subject I hope shortly to publish a self-contained study.

In Part I., then, I enquire how the great inequality of incomes in modern communities strikes modern minds, especially at the immediate close of the war, and how far ethical first principles give any guidance in regard to it.

In Part II., I sketch the growth of the theory of distribution in the hands of successive generations of economists.

It is an inevitable result of the revision of my pre-war plans that this part of the book should seem disproportionately long.

The theory developed in Part III., on the subject of the division of income between categories, is very much a skeleton. But even a skeleton is easier to clothe than a ghost, and it is only the ghost of a theory on this subject that can be discovered in existing textbooks. I shall watch hopefully for later writers, who will clothe my skeleton with flesh, or even, perhaps, re-arrange its bones.

In Part IV., in discussing the division of income between persons and the causes of the inequality of incomes, I have deliberately laid great stress on the factor of inherited wealth, owing to its neglect by most other writers. In Chapter X. of Part IV. I have brought together a number of tentative suggestions for the practical reform of the law of inheritance. But I have not attempted to discuss the probable effects, on inequality and on productive power, of the various projects now current for the reorganisation of industry, in whole or in part, on a Socialistic basis. For both thought and action in this matter are moving rapidly in many parts of the world, and any adequate discussion would need to be lengthy, while present conclusions, especially as regards production, may soon be modified by new experience.

My obligations to Professor Cannan, as regards the general conception of the book, have already been indicated. I have further to thank him for many criticisms on points of detail. Sir Arthur Peterson and Mr. T. E. Gregory have also given me the benefit of their judgment on particular points.

HUGH DALTON.

London School of Economics,
March, 1920.

NOTE

The page references to Mill's *Principles of Political Economy* are to Ashley's (1909) Edition, to Marshall's *Principles of Economics* to the fifth edition, to Professor Taussig's *Principles of Economics* to the first edition, and to Professor Nitti's *Scienza delle Finanze* to the fourth Italian edition.

CONTENTS

PART I

Some Ethical Aspects of the Inequality of Incomes.

PART I

CHAPTER I

Economic Contrasts and the Modern Spirit

§1. "The problem of poverty" is an economic commonplace. On its existence and importance, though not upon its solution, all thoughtful persons are agreed.

The word "poverty," as commonly used, implies a contrast. It signifies a failure, through insufficiency of income, to reach a certain standard of economic welfare. This standard may be either a standard which *is in fact reached* by certain communities, or sections of communities, or a standard which, it is thought, *should be reached*, if life, from an economic point of view, is to be worth living.

Thus, on the one hand, we speak of the poverty of the inhabitants of India, as compared with those of Great Britain, or of the worst paid workers in Great Britain, as compared with the working classes in general, or of the working classes in general as compared with "the rich"; or, on the other hand, we speak of the poverty of certain sections of the population, as compared with a standard which is held to be "reasonable," or with a standard measured by the purchasing power of a "living wage," however defined.

Further, it accords with common knowledge and common usage to say that, in almost all modern communities, there exists great poverty side by side with

great wealth. In the United Kingdom, for example, it was estimated before the war that half the total income of the community went to about 12%, and a third of the total income to about 3%, of the population.[1]

The contrast between wealth and poverty, based upon the size of incomes, is heightened by the contrast between different methods of obtaining income and, in particular, between active work and passive ownership. It is again a commonplace that, while the great majority of incomes, and especially of small incomes, are only obtained by hard work, many of the larger incomes are obtained with little or no work on the part of their recipients. It results, in the words of an Italian economist, that in modern communities "some live without working and others work without living."[2]

§2. The degree of acquiescence with which these facts have generally been regarded may surprise the philosopher, as it would assuredly surprise a visitor from some happier planet, where such strong contrasts were unknown. The acquiescence of the more fortunate classes does not, perhaps, need much explanation. It is common to find even reflective men of good will regarding the economic arrangements under which they prosper as being better than any practicable alternative, and attributing a great part of their own prosperity to their own merits. To others acquiescence comes even more easily, though it may sometimes be tinged with a sense of insecurity. "The shallow rich," says Bagshot, who was a shrewd observer but no revolutionary, "talk much of the turbulence of the poor and their tendency to agitate. But it is the patience of the poor that most

[1] These are Sir L. Chiozza Money's figures (*Riches and Poverty*, 1910, Chapter III), which are admitted by other experts to be substantially accurate.Compare Bowley, *Division of the Product of Industry*. It is not yet possible to speak with any precision of the effects of the war on distribution.

[2] Loria, *Basi Economiche della Società*, p. 1.

strikes those who know them."[1] Yet what seems like conscious patience is often the almost unconscious acquiescence of habit, that " enormous flywheel of society, its most precious conservative agent, which alone keeps us within the bounds of ordinance, and saves the children of fortune from the envious uprisings of the poor."[2] Nor is this all. " One must remember the stuff of which life is made. One must consider what an overwhelming preponderance of the most tenacious energies and most concentrated interests of a society must be absorbed between material cares and the solicitude of the affections. . . . . Men and women have to live. The task for most of them is arduous enough to make them well pleased with even such imperfect shelter as they find in the use and wont of daily existence."[3] The more arduous the task, the less the opportunity for discontent, or even for reflection. Only when men have a surplus of energy over and above that necessary for earning a living, have they the time, or the power, or the spirit, to take stock of their condition and to ponder large projects of improvement.

§3. The majority of mankind have always been poor,[4] and nearly always acquiescent in their poverty.[5] Such is the general evidence of history. But recent years have seen in many countries a perceptible and widespread change, a stirring of the mud of acquiescence, if nothing more. The general causes of this " unrest," as it is vaguely called, cannot be adequately discussed here, but certain aspects of the modern movement of opinion, of

[1] J. A. Spender, *Comments of Bagshot*, I, p. 38.

[2] William James, *Principles of Psychology*, I, p. 121.

[3] Morley, *On Compromise*, p. 203.

[4] Poor by comparison not only with the wealthier classes of their day and nation, but with the lowest standard of economic welfare, which can be deemed to permit of a civilised existence.

[5] Compare Maine, (*Ancient Law*, p. 68) who remarks that at every point of past time " by far the greater part of mankind " has been without any conscious desire for " progress."

which this unrest is a symbol, may be shortly noticed.

In the first place, the thought of ordinary people concerning the economic structure of society is becoming both more comprehensive and more critical. The kindred forces of education and "agitation" are powerful, and their power is increased by the growth of great cities, where intercourse and the circulation of ideas are easy. And, as common thought becomes more comprehensive, the larger economic contrasts are more clearly realised, and, as it becomes more critical, these contrasts are more sharply called in question. Modern social classes are chiefly defined by differences of income, and modern sentiment is increasingly opposed to large inequalities between classes. There is, indeed, an appreciable movement of adults from class to class, and a still more appreciable movement of children into other classes than those of their parents. Such mobility does something no doubt to weaken resentment at the inequalities between classes. But the mobility will need to grow much greater, and the inequalities much smaller, before such resentment can be expected to disappear.

At the present time the opinion steadily gains ground that there is at least a presumption against all economic inequality. Inequality, according to this view, is not necessarily, nor in all cases, an evil, and even where it is admittedly an evil, it may none the less be the least of alternative evils. But "inequality is always on the defensive, and the greater and more lasting it is, the more difficult is its defence."[1] The possessors of abnormally swollen incomes are coming more and more to be regarded as somewhat unwholesome economic freaks.

In the second place, we may notice the growth of a spirit, which those who dislike it call "materialist." A heavier and more deliberate stress is laid upon the import-

[1] Taussig, *Principles of Economics*, I, p. 137.

ance of economic conditions. He, upon whom the economic forces of this world press hardly, is less satisfied than of old with the promise of better times beyond the grave. He wants to enjoy them now.

In the third place, in proportion as forms of government grow more democratic, the poor are liable to experience more acutely a sense of divided personality. Political equality, but economic inequality; political sovereignty, some would say, but economic subjection! The wide diffusion of political power acts, no doubt, as a check on counsels of violence. But it acts no less strongly, in the long run, as a stimulus to levelling policies, to be achieved by political means.

Finally, it is no longer believed, if indeed it ever was, except by a few, that great economic inequalities tend to disappear "of themselves," that any "invisible hand" removes them, while human hands are folded in passive expectation, that any "economic harmonies" dissolve them, while men go plodding along the beaten tracks of their fathers. On the contrary, it is constantly asserted and widely believed that "the rich are growing richer and the poor poorer,"[1] and the development of modern society seems to be marked, in many directions, by increasing disharmonies, both economic and psychological, between man and his environment.[2]

§4. And thus it could be truly said eight years ago that "to-day we are in a temper to reconstruct economic society, as we were once in a temper to reconstruct political society."[3] Upon that temper came the impact of four years of war, shattering, agonising, embittering, disillusioning beyond the possibility of estimate. The full effects of that impact will gradually unfold themselves.

[1] This form of words, though very common, is not free from ambiguity. Compare Part III, Chapter I below.

[2] Compare Graham Wallas, *The Great Society*, Chapters I and IV.

[3] Woodrow Wilson, *The New Freedom*, p. 26. Compare Taussig, *Principles of Economics.*, I, p. 137.

But some things are clear now. In some countries the survivors of the fighting have been promised "a land fit for heroes," and are busily searching for it. In others the old economic structure of society has collapsed already and the new structure, which will eventually replace it, is likely to differ widely from the old. In no country, it may safely be said, has the war failed to quicken men's criticism of the social order, and to strengthen their intolerance of all sharp economic contrasts, which appear to them to lack justification. Rather does it seem that throughout the world " there is a great tide flowing in the hearts of men," which will wash against the foundations of inequality, wherever they may be found, and may flow so strongly as to carry away many familiar landmarks.[1] In such a situation there is both great promise of good and great danger of evil and, in order to realise the former and avoid the latter, each member of the community should make the contribution of thought and effort, of which he is most capable. Among the contributions which a student of economic science can best make is an attempt to solve some of those outstanding problems of economic cause and effect, which are relevant to the contrast of wealth and poverty, but for which complete solutions have not yet been found. This book is an attempt of this kind.

[1] Mr. Keynes in the second chapter of his *Economic Consequences of the Peace* has brilliantly pictured the pre-war psychology of modern capitalistic societies and their inherent instability.

CHAPTER II

Economic Welfare and the Inequality of Incomes

§1. Human welfare is divisible into economic, or material, welfare on the one hand and, on the other hand, various kinds of welfare which are not economic. This division will be sufficiently intelligible without further discussion, though by the nature of things the dividing line is not clear cut.[1]

The relative importance which should be attached to economic and non-economic welfare, and the probable effects of changes in economic welfare upon welfare as a whole, have been much disputed. But modern opinion, in the civilised countries of the Western world at any rate, seems to hold with increasing strength that economic welfare is of very great importance, both for its own sake and as a means to other sorts of welfare, which may often be of even greater intrinsic importance, and further that an increase in economic welfare is generally likely to cause an increase in human welfare as a whole. Man does not live by bread alone, but without bread he cannot live at all, and without a sufficiency of bread he cannot even hope to live worthily. Moreover, the burden of proof rests upon those who assert that, in any particular case, an increase of economic welfare diminishes welfare in the widest sense. With this view of things I personally have no quarrel, and I shall adopt it in what follows.

§2. Income consists of the means of economic welfare,[2]

[1] Compare Cannan, *Wealth*, Chapter I.
[2] Compare Part III, Chapter II below.

and great inequality of incomes in any community implies great inequality in the economic welfare attained by different individuals. But this is not all. For it implies also considerable waste of potential economic welfare. Put broadly, and in the language of common sense, the case against large inequalities of income is that the less urgent needs of the rich are satisfied, while the more urgent needs of the poor are left unsatisfied. The rich are more than amply fed, while the poor go hungry. This is merely an application of the economists' law of diminishing marginal utility, which states that, other things being equal, as the quantity of any commodity or, more generally, of purchasing power, increases, its total utility increases, but its marginal utility diminishes. An unequal distribution of a given amount of purchasing power among a given number of people is, therefore, likely to be a wasteful distribution from the point of view of economic welfare, and the more unequal the distribution the greater the waste. Up to a certain point, the more equal the distribution, the further a given amount is likely to go in satisfying economic needs, and hence in increasing economic welfare.

Where, however, is this point? An absolutely equal division of a given income, whether between individuals or between families, will obviously fall a long way short of making the economic welfare derivable from this given income a maximum. The ideal distribution would rather be a distribution according to the capacity of individuals, or families, to make a good use of income. This ideal is very far from realisation in the actual world. To mention two obvious details only, it requires not only that many of the young should be richer, and some of the old poorer, than they now are, but that those who have the power of making money should have also, far more than now, the gift of spending it well. Furthermore, the

capacity to make good use of income can only be developed, in any high degree, by the habitual handling of an income larger than that to which a considerable part of mankind ever attain throughout their lives. It is only through opportunities of spending income as they will that people can learn to spend income well. It is clear, however, without labouring the matter further, that a large reduction in the existing inequality could be made, which would result in bringing us considerably nearer to the ideal.

§3. So far we have been considering the ideal distribution of a given income among a given number of people, and it has appeared that, though absolute equality of incomes is not desirable, yet a large reduction in the inequality found in modern communities would increase economic welfare. This conclusion may obviously need qualification, if such a reduction of inequality causes either a reduction of the total income to be divided, or an increase in the number of people relatively to the total income to be divided among them. The fear that an increase in the incomes of the poorer classes would stimulate the growth of their numbers and lead to "over population" and a consequent reduction of these incomes to their old, or even to a lower, level was much in the minds of the early Victorian economists.[1] But in the civilised countries of the Western world at the present time this fear seems groundless, though among Eastern peoples it may still be otherwise. In the modern communities of the West, however, the evidence available seems to show conclusively that an increase in the economic welfare of any class tends to lower rather than to raise its rate of numerical increase.[2]

The danger that certain methods of reducing inequality

[1] See, for example, Mill's argument (*Principles*, pp. 361–6) on the probable effects of a legal minimum wage.

[2] Compare Pigou, *Wealth and Welfare*, pp. 28–31.

might check production is very much more serious, and is the chief objection to many far-reaching projects of economic change. Thus Sidgwick tersely observed, "I object to Socialism, not because it would divide the produce of industry badly, but because it would have so much less to divide."[1] The effects upon production of any change which would reduce inequality must be considered in each particular case upon their merits before we can decide whether or not such a change would increase economic welfare. It may safely be asserted, however, that many changes, which would reduce inequality, would also stimulate production. Further, economic welfare may sometimes be increased by changes which, while reducing inequality, tend to check production, provided that the check is not severe, and still more, provided that it is only temporary. In Marshall's words, "a slight and temporary check to the accumulation of material wealth need not necessarily be an evil, even from a purely economic point of view, if, being made quietly and without disturbance, it provided better opportunities for the great mass of the people, increased their efficiency, and developed in them such habits of self-respect as to result in the growth of a much more efficient race of producers in the next generation. For then it might do more in the long run to promote the growth of even material wealth than great additions to our stock of factories and steam-engines."[2]

§4. The proposition that economic welfare is increased by an increase in production per head is subject to a further qualification, which is often insufficiently recognised. The economic ideal here is evidently not maximum production, but such a relation between product on the one hand and the efforts and sacrifices involved in production on the other, as to yield a maximum of economic

[1] *Principles of Political Economy*, p. 516.
[2] *Principles*, p. 230.

welfare.[1] As the productive power of a community grows, the importance of reducing the subjective cost of production increases relatively to the importance of increasing the product. Further, the distribution of the total subjective cost in modern communities is, like the distribution of income, exceedingly unequal, and just as economic welfare will be increased, other things being equal, by a reduction in the inequality of incomes, so it will be increased by a reduction in the inequality of subjective cost borne by different individuals.[2] This inequality of subjective cost is specially great in modern communities, owing to the fact that incomes derived from property involve practically no subjective cost when the property has been received by inheritance or gift, and often comparatively little when the property is based upon savings made by the recipient, while, of course, the subjective cost of obtaining incomes from work bears no regular relation to their size, but is often exceedingly heavy for some of the smallest incomes, and is reduced for many of the larger by the intrinsic interest of the work and the comparative independence of the worker. One method of diminishing subjective costs is to increase leisure, provided that work is not more than proportionately speeded up during the shorter working hours. And

[1] This is obvious, but many economists have failed to emphasise it. Historically, economic science has been built up chiefly on what may be called its positive side ; stress has been laid on the conditions under which wealth is produced, rather than on the limits within which the production of wealth is worth while. Compare the comments of Mr. Robertson, (*Study of Industrial Fluctuation*, pp. 208–9), on " the didactic and somewhat priggish attitude of the other classes " toward those manual workers, who decide to take part of their share of increased prosperity in the form of increased leisure.

[2] The analogy is tolerably close, though not exact. To the law of diminishing marginal utility of income roughly corresponds the law of increasing marginal " disutility of labour." Compare Jevons, *Theory of Political Economy*, Chapter V. Mr. J. A. Hobson in his *Work and Wealth* recognises more clearly than most economists the importance of what I have called subjective cost.

of leisure, as of income, it may be laid down that the ideal distribution is according to the capacity of individuals to make a good use of it. From which it follows that, other things being equal, both an increase in leisure and a decrease in the inequality of its distribution will increase economic welfare.

§5. The comparative importance of a further increase in production, of a diminution in the inequality of incomes, of a diminution in the subjective cost involved in production, and of a diminution in the inequality of subjective cost borne by different individuals, will vary in different stages of a community's economic development and will always depend to some extent upon individual opinion.[1] In even the wealthiest communities a considerable increase in productive power is still necessary before a point will be reached, at which an approximately equal distribution of income and a large general reduction of subjective costs will provide, according to modern standards, a reasonably high level of economic welfare.[2] For a while, though not, we may hope, for ever, a serious check to production would be a high price to pay for an improvement in the other main factors of economic welfare. This consideration makes it all the more important to discover methods of improvement in these other factors, which shall actually stimulate production.[3]

[1] Compare Marshall, *Industry and Trade*, p. 659, and the problem as stated by Robertson, *Industrial Fluctuation*, pp. 253-4

[2] Compare Dr. Stamp's pre-war estimates of *The Wealth and Income of the Chief Powers*, (*Journal of the Royal Statistical Society*, July, 1919).

[3] Mr. Keynes, (*Economic Consequences of the Peace*, pp. 16 ff), argues that inequality was a dominant cause of accumulation during the nineteenth and early twentieth century. This no doubt is true, though it seems an obvious exaggeration to say that during this period "Europe was so organised as to secure the maximum accumulation of capital." (p. 16). But the circumstances of the future are likely to differ markedly from those of the past and the problem of diminishing inequality, without diminishing production, will need a solution appropriate to the changed circumstances. The development of the habit of collective, as distinct from individual, saving will be a necessary

§6. It remains to notice that among certain sections of the workers in modern communities, there is growing up, alongside of the resentment at the contrasts of wealth and poverty, referred to in the last chapter, a resentment at the contrasts of economic function which are found in the modern industrial system.[1] Objection is taken, not only to the fact that large numbers of workers receive a comparatively small share of the total product of industry, but also to the fact that they exercise comparatively little control over the management of the industries, in which they are employed. These two objections are sometimes combined in the objection, not indeed very happily phrased, to werking " in order to make unlimited profits for private capitalists." Of this resentment at contrasts of economic function Mr. Justice Sankey in the Second Report of the Coal Commission of 1919 wrote "half a century of education has produced in the workers of the coalfields far more than a desire for the material advantages of higher wages and shorter hours. They have now, in many cases and to an ever increasing extent, a higher ambition of taking their due share and interest in the direction of the industry to the success of which they, too, are contributing."[2] And this ambition is not confined to workers in the coalfields.

The idea of increased " control of industry " by the workers employed in each industry takes various forms, and has been worked out in various ways. It is one of the dynamic ideas of this generation, and raises important issues, in relation both to economic and to non-economic welfare. No modern student of economic science can afford to neglect it. But it does not fall within the scope of this book It has been claimed by enthusiastic

condition of the successful abandonment of the capitalist system. Compare Part IV., Chapter X. below.

[1] Compare de Maeztu, *Authority, Liberty and Function*, pp. 197–199

[2] *Report* p. 11.

advocates of this idea that "the question of poverty has now given place to the question of status," but this is an exaggeration. The problem of poverty will continue to exercise men's thoughts, as long as the fact of poverty remains a reality, and the idea of a more equal distribution of an increasing income obtained with diminishing effort will not easily be surpassed in practical importance or in vividness of appeal to modern minds.

CHAPTER III

Justice and the Inequality of Incomes

§1. In the last chapter the inequality of incomes was considered in relation to economic welfare. In this chapter it will be considered in relation to the idea of justice. This division corresponds to Professor Cannan's distinction between considerations of economy and considerations of equity.[1]

The conception of justice has been the subject of agelong dispute, and the statement of ideals, and especially of economic ideals, in terms of justice seldom leads to clear practical conclusions.[2] More often it leads to moral indignation without reflection, to the enthusiastic assertion of inconsistencies, or to such absurd bravado as that of the old Roman who cried "*fiat justitia, ruat cælum* !"—"let justice be done, though it should bring down the sky upon our heads ! " But if the sky *had* fallen and had proved as heavy as the physicists of those days imagined it to be, just and unjust Romans would have been overwhelmed together, and the just might plausibly have complained of the injustice of their fate.

For the purpose of our present enquiry, it is important to answer two questions. First, how far, if at all, are

[1] See, *e.g.*, his *History of Local Rates*, Chapters VII. and VIII. and his *Economic Outlook*, pp. 299 ff.

[2] "'Blessed,' it is said, 'are they that hunger and thirst after justice!' But perhaps it is more easy to hunger and thirst after it than to define precisely what it means." Mackenzie, *Manual of Ethics*, p. 310.

current canons of economic justice regarding the distribution of incomes in conflict with the canons of economic welfare discussed in the last chapter, and second, in so far as there is no such conflict, does the idea of economic justice lead us to any important practical conclusions in addition to those reached in the last chapter?

§2. Chapter V. of Mill's *Utilitarianism*, "On the Connection between Justice and Utility," suggests a clue to the answers we are seeking. "People find it difficult to see in justice," says Mill, "only a particular kind or branch of utility,"[1] but in truth justice is no more than "a name for certain moral requirements, which, regarded collectively, stand higher in the scale of social utility, and are of more paramount obligation than any others."[2] According to this view, the sphere of justice is included within the sphere of social utility, or, as some would prefer to say, of social welfare. Nothing is just which does not increase welfare, but, out of the aggregate of actions which increase welfare, some, which increase it in a specially high degree, may be classed together as just.

Thus Mill distinguishes justice from mere beneficence or generosity. "Justice implies something which it is not only right to do, and wrong not to do, but which some individual person can claim from us as his moral right."[3] The practical question at issue might, therefore, be restated in this form. What classes of actions which increase welfare may justly be demanded by individuals as their moral rights and, in particular, what public policies which increase welfare may be justly demanded by individuals from society? This view of justice is fatal to the formula "*fiat justitia, ruat cœlum,*" except on the assumption that, if the sky were to fall, welfare would be increased.

§3. We may now consider, in the light of their probable

[1] *Utilitarianism*, p. 63. [2] *Ibid*, p. 95. [3] *Ibid*, p. 75.

effects upon economic welfare, various current ideas of justice, which bear on the problem of the ideal distribution of income. These ideas fall into two groups, according as they do, or do not, offer a complete solution of this problem. Among those that offer only an incomplete solution, we may here notice two, namely the positive idea that it is just that all workers should receive a "living wage," and the negative idea that it is unjust to "disappoint legitimate expectations."

In common usage a living wage means a wage which will enable a worker to live and bring up a family at the lowest standard of comfort which modern opinion regards as "reasonable" or "tolerable for human beings." This is a very vague and fragmentary conception. It is vague, because it is defined by reference to a standard of reasonableness, which is itself not only vague, but liable to arbitrary change. It is fragmentary, because it takes account of wages only and not of other factors in the worker's standard of life, such as leisure and healthy conditions of employment and housing. Further it only offers an incomplete solution of the problem of ideal distribution of income, because it gives no answer to the question, whether, assuming that all workers have at least a living wage, it is just that great inequalities of income, due to the inheritance of property and other causes, should continue.

The principle of the living wage, as commonly interpreted, is not inconsistent with the canons of economic welfare. But it is less comprehensive and less easy to apply. The principle of the National Minimum, which is conceived with reference to economic welfare as a whole, includes it and much more besides, and is to be preferred as a guide to practical policy.

§4. The disappointment of legitimate expectations is often said to be unjust. It was this conception of justice which led the Rugby schoolboy to say of Temple that he

was "a beast, but a just beast." It is, of course, often very difficult to decide what expectations *are* legitimate.[1] But it is obvious that, in normal times, any large and sudden interference with economic expectations, which, whether legitimate or not, have become firmly established in men's minds, creates a sense of insecurity, which tends to check production and thus to diminish economic welfare.[2] Considerations of economic welfare carry us thus far, and the doctrine of legitimate expectations carries us no further, in the pursuit of practical conclusions.

This doctrine is, in any case, purely negative and cannot furnish any positive solution of the problem of ideal distribution. In practice, this and similar notions of justice act only as slowly yielding obstacles to new ideas, as somewhat undiscriminating "brakes upon the wheels of change." They supply no positive guidance as to the form which change should take.

§5. We may now go on to consider various competing principles of economic justice, which do offer complete solutions of our problem. The two main principles here are "distribution according to deserts" and "distribution according to needs." But at least three rival interpretations of "distribution according to deserts" are commonly met with. The first is absolute equality of incomes, the second is distribution according to the value of work done, provided that "equality of opportunity" is first secured, the third is distribution according to the value of work done in the existing state of society.[3]

[1] Compare Cannan, *History of Local Rates*, pp. 162–3.

[2] In abnormal times, when a strong sense of insecurity is already present, this objection to drastic changes loses much of its force. In Russia, for example, a strong case can be made out, on grounds of economic expediency, for the recent expropriation of large landowners and other capitalists without compensation and for the repudiation of the internal, though not perhaps of the external, debt.

[3] "Value of work done" in both cases is generally taken to mean exchange value. Attempts are sometimes made to interpret value as

§6. Absolute equality of incomes, as an ideal of economic justice, has found few weighty advocates. It requires no lengthy argument to prove that an absolutely equal distribution, whether among families or among individuals, is in fact quite impracticable, and that, even if it could be realised in the modern world, it would inflict vast damage on economic welfare. It would, indeed, be a typical application of the shallow precept "*fiat justitia, ruat cœlum!*" "Perfect equality," as Bentham says, "is a chimera, all we can do is to diminish inequality."

The rejection of crude equalitarianism does not, however, take us far, though there are some who seem to think that, when they have disposed of the argument for absolute equality, they have disposed also of all arguments for reducing existing inequalities.[1]

§7 Given equality of opportunity, distribution according to the value of work done appears to many to be just. Many, therefore, hold that equality of opportunity is just. "The firm basis of government," said President Wilson in his Inaugural Address to the people of the United States in 1913, "is justice, not pity; and equality of opportunity is the first essential of justice in the body politic."

If we are to use words strictly, it is obvious that absolute equality of economic opportunity is no more attainable in the real world than absolute equality of incomes. "A logical individualism requires a fair start and an equal opportunity for each individual *within the period of his own life*, whereas the actual unit, the family, is all the time doing its utmost to abolish the boundaries

"social value," but this idea, on closer examination, is too vague to permit of wide practical application. Value, therefore, in the discussion which follows is taken to mean exchange value, as elsewhere in economics.

[1] See, for example, Smart, *Distribution of Income*, pp. 100–102, and the writings of Mr. Mallock, *passim*.

between life and death and to give its own members, with the aid of the dead hand as well as the living, a long lead and a safe retreat."[1] To alter this state of things, so as to secure absolute equality of opportunity, we should need effectively to prohibit all inheritances and bequests, all gifts from one person to another, and all expenditure, in excess of a small prescribed maximum, by parents on the education and upbringing of their children. Indeed we should need to go further, and to take all children away from their parents as soon as possible after birth and lodge them in public institutions. For a child's opportunity in life depends intimately upon the conditions and surroundings in which its early years are spent. Such policies are, of course, fantastic. If it were practicable to carry them into effect, which obviously it is not, nearly all motives for saving and many motives for exertion would disappear, and economic welfare would gravely suffer. Fantastic, therefore, would be an unconditional demand, in the name of justice, for equality of opportunity. It would once more be a cry of "*fiat justitia, ruat cœlum!*"

But, though the establishment of perfect equality of opportunity is impracticable, there are many practicable policies which will make opportunities far more nearly equal than they are to-day in most modern communities.[2] Wisely carried out, such policies will increase economic welfare both by diminishing the inequality of incomes and by increasing production.

Equality of opportunity, then, is defensible conditionally by reference to considerations of economic welfare. It is not defensible unconditionally by reference to considerations of justice. But the greater the approach towards equality of opportunity, the more reasonable

[1] Spender, *Comments of Bagshot*, II, pp. 15–16.
[2] Compare Part IV., Chapters II, III, IV and X below.

the contention that a distribution according to the value of work done is just.

In communities where rough equality of opportunities prevails, and where men recognise that it prevails, economic contrasts are likely to cause less resentment than elsewhere. Such rough equality is found at certain stages in the development of new countries, when nearly all large incomes are due, not to inheritance, nor to a superior education, but to the labour and fortunate enterprise of their possessors, and when all men have an almost equal chance to make their way. But no community has hitherto succeeded in maintaining such a state of things for long.

§8. The justice of distribution according to the value of work done in the existing state of society in an old country is a doctrine which it is hard to render plausible. For inequalities in the value of work done are here largely due to unequal opportunities of doing work that is valuable, and a social order which permits great inequalities of opportunity is, as we have seen, widely held to be itself essentially unjust.

Further, in most interpretations of this doctrine, "work done" is taken to include all economic services rendered to society, and all owners of property are held to render services in proportion to the income which society permits them to receive. Such an interpretation is necessary, if the doctrine is to cover incomes from property. Now, though it is clear enough that he who saves renders a service to society by adding to the stock of existing capital and hence to society's productive power, it is by no means clear that he who inherits property, or he who merely happens to own property, which, through no action of his own, increases in value, necessarily renders any service at all. Many thoughtful persons find it hard to believe that merely to permit one's land to be used, or merely to refrain from consuming

one's capital, is to render any positive service,[1] or that income from inherited property can be seriously regarded as payment for service rendered by the present owner. It is also very hard to believe that, if competing sellers of any commodity cease to compete and enter into a combination, as a result of which their output is deliberately restricted, the price of the commodity raised and their incomes largely increased by monoply profits, these increased incomes represent increased services rendered to society.

Suggestions of this kind, though capable of being so "interpreted" as to be logically flawless, strain language to the breaking point. If made by rich men, poor men might be pardoned for thinking them disingenuous. When made by professional economists, they tend to discredit economic science in the eyes of the simple.

The proposition that justice requires that the distribution of income *should be* according to the value of services rendered in the existing state of society is logically distinct from the proposition that distribution in the existing state of society *is in fact* according to the value of services rendered.[2] But, in practice, those who maintain the former generally maintain the latter also.[3]

§9 Having examined various interpretations of the doctrine that justice requires distribution according to deserts, we may now pass on to examine the doctrine that justice requires distribution according to needs. The meaning of "needs" is not altogether clear, but if

[1] It might be thought more reasonable to regard the consumption of capital as a positive disservice to society, for which a diminution of income in the future is an inadequate penalty.

[2] The identification of what should be with what is, or at any rate with what "is evolving," is the leading fallacy of Herbert Spencer's "Evolutionary Ethics," which was exposed by Huxley in his Romanes Lecture in 1893 (reprinted in his *Essays Ethical and Political*). But this fallacy seems to have trapped so eminent an economist as Principal Hadley, (*Economics*, pp. 18–19).

[3] *E.g.*, Smart and Professor J. B. Clark.

we understand by an individual's needs his capacity for making good use of income, this doctrine is identical in practical effect with the principle suggested in the last chapter for securing an ideal distribution from the point of view of economic welfare, provided that its application does not react unfavourably upon production and other relevant factors. Thus, as Professor Cannan points out, the principle of distribution according to need " is adopted in besieged cities, in ships short of provisions at sea, in hospitals and between members of the family unable to support themselves in every well conducted home. It is not adopted by ' nations,' not because it is not a good principle, but because the amount to be distributed . . would be immediately affected by the change in distribution and that in a very disastrous manner."[1] It may be added that attempts have recently been made by various nations, both during and after the war, to adopt this principle to some extent by means of " rationing " various commodities and fixing maximum prices. For the condition of many nations during the past few years has closely resembled that of " besieged cities " or of " ships short of provisions at sea." The principle of distribution according to need is, in fact, yet another example of a principle, which may be defended conditionally by reference to considerations of economic welfare, but not unconditionally by reference to considerations of justice.

It is a principle which, within the limits of prudence, may profitably be adopted by nations even in normal times. Much modern legislation, which creates what is spoken of later in this book as " income from civil rights,"[2] in effect transfers a certain amount of income from the general body of taxpayers to particular groups of persons, and this income is distributed, and is meant to be distri-

[1] *Economic Outlook*, p. 309.
[2] See Part III, Chapter III and Part IV, Chapter II below.

buted, in rough accordance with the needs of those who receive it. Its distribution on this principle may increase economic welfare both by diminishing the inequality of incomes and by increasing production.[1] An important question, which needs further investigation, is how far, if at all, the principle of rationing and fixing maximum prices for necessaries can be profitably applied in time of peace.

In any case, " it is certain," as Professor Cannan says, " that as a general rule approximations towards greater equality of income mean at the same time approximations towards distribution according to need, and should therefore be welcomed, whenever the advantage thus gained is not offset by an equal or greater loss resulting from damage to production."[2]

§10 The results reached in this chapter may be thus summed up. The current canons of economic justice, which we have examined, are seen to be largely inconsistent with one another, and this is specially the case with those which offer complete solutions of the problem of ideal distribution. " Who," as Mill asks, " shall decide between these appeals to conflicting principles of justice"? Thus, in the conflict between the ideals of distribution according to the value of work done and of distribution according to needs, "justice has two sides to it, which it is impossible to bring into harmony, and the two disputants have chosen opposite sides; the one looks to what it is just that the individual should receive, the other to what it is just that the community should give. Each, from its

[1] Whether or not such transfers of income tend to increase production largely depends on how far they increase the health and efficiency of the recipients. This question is discussed further in Part III, Chapter II below. Such transfers may increase economic welfare not only by diminishing the inequality of incomes of different individuals during any given period, but also by diminishing the inequality of the incomes of given individuals during different periods. Compare Pigou, *Wealth and Welfare*, Part IV.

[2] *Economic Outlook*, p. 310.

own point of view, is unanswerable; and any choice between them, on grounds of justice, must be perfectly arbitrary. Social utility alone can decide the preference."[1]

But, while the canons of economic justice are highly disputable, the canons of economic welfare are, by comparison, matters of general agreement. There is comparatively little ground for dispute in the propositions that economic welfare will be increased, other things in each case being equal, by a more equal distribution of income, by an increase in production per head, by an increase, and by a more equal distribution, of leisure. It is probable that all these propositions would be accepted by a large majority among reflective and reasonable people. There is certainly no such majority unconditionally in favour of any one of the rival canons of economic justice.

We have seen, further, that some of the current canons of economic justice, such as equality of opportunity and distribution according to need, are defensible conditionally, by reference to considerations of economic welfare, but that, if applied unconditionally to the real world, with which alone we need concern ourselves, they would diminish economic welfare to a disastrous extent.

Although, however, certain canons of economic justice, if prudently and partially applied, may increase economic welfare, such prudent and partial applications are from another point of view only applications of the canons of economic welfare. Mill's saying that justice is included within the sphere of social utility is thus illustrated.

§11. In view of these conclusions, it is not surprising to find that most modern economists, in so far as they enter upon the discussion of economic ideals, base their arguments upon the ideal of social utility or economic

[1] *Utilitarianism*, pp. 86-7.

welfare, rather than upon the ideal of economic justice. Sidgwick is driven, by the grave economic objections to the realisation of "distributive justice," to a direct discussion of "economic distribution."[1] Marshall points out that "the tendency of careful economic study is to base the rights of private property, not on any abstract principle, but on the observation that in the past they have been inseparable from solid progress."[2] Professor Pigou in his *Wealth and Welfare* is content to investigate "the general relations that subsist between economic welfare on the one hand, and, on the other hand, the magnitude, the distribution among people, and the distribution in time, of the national dividend." Finally, Professor Cannan has thus contrasted "the principles of equity and economy," in so far as they are in conflict with one another. It is indeed true, that "no government can afford to disregard the ideas of equity entertained by its subjects at any particular time. It is no use to try to forget the fact that men are generally prepared to sacrifice their economic interests on many altars, one of which is dedicated to justice. But of the two principles, Equity and Economy, Equity is ultimately the weaker. History, and indeed the recollection of every middle-aged man, provide instances which go to show that the judgment of mankind about what is equitable is liable to change, and that one of the forces which cause it to change is mankind's discovery from time to time that what was supposed to be quite just and equitable in some particular matter has become, or perhaps always was, uneconomical."[4]

But the saying that equity should give way to economy, and that the ideal of economic welfare is a better guide

[1] *Principles of Political Economy*, pp. 515 ff.
[2] *Principles of Economics*, p. 48.
[3] *Wealth and Welfare*, p. 487.
[4] *History of Local Rates*, p. 173.

to practice than the ideal of justice, must not be misunderstood. The ideal of human welfare, of which economic welfare is a fundamental and seldom a disharmonious part, is not less high than the ideal of human justice. The first demands for mankind the highest good which the conditions of an imperfect world allow, and the second can demand no more. The appearance of disharmony between these two ideals for the most part disappears, when words are clearly defined and the effects of given causes coolly traced.

PART II

The Historical Development of the Theory of Distribution.

PART II.

CHAPTER I.

THE USE AND ABUSE OF THE HISTORICAL METHOD IN THE STUDY OF ECONOMIC THEORY.

§1. We may now pass on to a survey of the historical development of the theory of distribution.

The so-called "historical method" is often misapplied, both in economics and elsewhere. Much laborious research into the economic facts of the past has no practical utility in the present, and, for most minds, little or no interest "for its own sake." The same is true where the economic opinions of the past are concerned. "The wrong opinions of dead men" are apt to be wearisome and Professor Pigou excites our sympathy when, being invited to review a tome on *Theories of Value before Adam Smith*, he complains that "these antiquarian researches have no great attractions for one who finds it difficult enough to read what is now thought on economic problems, without spending time in studying confessedly inadequate solutions that were offered cen-uries ago."[1]

If it be asked whether a particular proposition in economics be true or false, it is no answer to reply that it was first propounded by Ricardo. Similarly, if it be asked whether a particular institution, judged by its present-day effects, be good or bad,—for example, the

[1] *Economic Journal*, 1902 p. 374.

present law of inheritance in England,—it is no answer to debate its origin. What is required in each case is, not a historical disquisition, but a direct study of the effects of given causes. The historical method is a very bad substitute for the analytical; or rather it is no substitute at all. "A history," as Maitland says, "however interesting, is not a reason." All this is obvious, but in practice sometimes disregarded.[1]

§2. None the less, it is important to attempt some survey of the historical development of those parts of modern economic theory which are relevant to the subject-matter of this book. For only after such a survey can the modern student realise clearly the precise questions, which economists in the past have attempted to answer. Only then can he form his own judgment as to how far their answers are correct and complete, and, hence, as to the extent and nature of the work, which awaits economists of the present generation. Such a survey discloses two sorts of bias, to which many economists in the past have been prone, and against which the modern economist should be on his guard.

In the first place, even the most abstract thinkers tend to be unduly influenced by the transitory economic conditions of their own time, and to mistake these for things permanent and unchangeable. The opinions of Ricardo concerning rent and of Malthus concerning population illustrate this tendency.[2]

[1] Morley (*On Compromise*, pp. 30-31) has clearly shown how abuse of the historical method enervates opinion. For, according to this method, "opinions are counted rather as phenomena to be explained than as matters of truth and falsehood. . . . In the last century (*i.e.*, the eighteenth) men asked of a belief or a story: Is it true? We now ask: How did men come to take it for true? The devotees of the current method are more concerned with the pedigree and genealogical connections of a custom or an idea than with its own proper goodness or badness, its strength or weakness."

[2] Professor Nitti, in his *Popolazione e il Sistema Sociale*, has admirably shown that many divergent doctrines of population, originating in a number of different countries, have this defect in common.

In the second place, even the most original thinkers are apt to be somewhat imitative in choosing their special lines of work. Each generation of economists tends to devote excessive attention to the doctrines of those, upon whose writings or oral teaching they have themselves been brought up. " I will not go so far as to say that English economists have lived by taking in one another's washing," a distinguished living economist is reported to have said, " but it is certainly true that they have spent a vast amount of time is mangling one another's theories."[1] Now we may be reasonably sure, if without undue disrespect the analogy may be employed, that, though the passage of a large flock of sheep through a gap in a hedge undoubtedly tends to enlarge that gap, yet, if some of the animals were adventurous and original enough to charge the hedge at other points, more light would shine through it in the long run.

§3. A study of the development of economic thought concerning the distribution of income involves, of course, a study of successive periods of economic writing, and the most obvious method of procedure is a chronological classification, which assumes that the new ideas contained in any book began to influence thought from the date of that book's publication. Generally speaking, indeed, this is the only practicable method, but it is not ideal. For, whereas the influence of some new ideas, especially at Universities, begins to make itself felt before they are published, the influence of others, though considerable in the long run, does not become so till long after publication. But a chronological classification seems to indicate with sufficient accuracy the main drift of economic thought, and is consequently adopted in what follows.

[1] Another distinguished living economist has suggested to me that the " historical method," as applied to economic theory, " is not a mere recital of obsolete opinions, but a revelation of the rottenness of existing opinions made by showing how they are only the obviously absurd opinions of a previous age dressed up in cunning disguises."

We have next to decide what periods are most appropriate for our purpose. Six books stand out as convenient landmarks, namely Adam Smith's *Wealth of Nations*, Ricardo's *Principles*, Mill's *Principles*, Jevons' *Theory*, Marshall's *Principles* and Taussig's *Principles*. We thus obtain seven periods;

(1) Before Adam Smith, up to 1776;
(2) Adam Smith to Ricardo, 1776–1817;
(3) Ricardo to Mill, 1817–1848;
(4) Mill to Jevons, 1848–1871;
(5) Jevons to Marshall, 1871–1890;
(6) Marshall to Taussig, 1890–1911;
(7) Taussig onwards, since 1911.

We shall now consider these periods successively, but shall only be able to touch lightly on many important points, since it is necessary to be reasonably brief.

CHAPTER II.

First Period: Before 1776.

§1. This period, though lengthy from the point of view of the geologist or the general historian, need not detain us long. The state of economic science before Adam Smith has been compared to that of astronomy before Copernicus. In neither case was there much to show.[1] The beginnings of modern economic literature may be traced to the seventeenth century writings of the Mercantilists in England and of the Cameralists in Germany. These writers attempted, without much success, to determine the relation of foreign trade to the aggregate wealth of a State. But " the Mercantilists appear to have had no theory of wages or rent. They were more or less unsystematic pamphleteers, and their ends concerned production rather than distribution."[2] The problem of the causes which determine the division of a given product between different persons or classes does not seem to have presented itself to their minds.

It is not till the appearance in the eighteenth century of Cantillon and the Physiocrats, that we find the first glimmerings of a theory of distribution. Cantillon's *Essai sur la Nature du Commerce*, published in 1755, has been described by Jevons as " the veritable cradle of Political Economy,"[3] and contains, in addition to other

[1] Though, as Professor Haney points out, " economic thought in its simplest form must have always existed, wherever thinking beings sought to gain a living." (*History of Economic Thought*, p. 15).

[2] Haney, *op. cit.*, p. 103.

[3] *Principles of Economics and other Papers*, p. 182. Cantillon appears, in the light of Jevons' researches, as a most interesting figure.

interesting matter which is not here relevant, an intelligent discussion of the causes of differences in wages in different occupations. Cantillon appears to have been the first writer to take account of influences, other than actual rates of pay, which help to determine the comparative attractiveness of different occupations.

The *Tableau Economique* of the Physiocrat Quesnay, published in 1756, foreshadows subsequent theories of distribution between factors of production. Quesnay held the curious view that only agriculture enriches a nation. All merchants, artisans and professional men,—the whole community, in fact, except farmers and the labourers employed by them—he dismisses, quaintly and comprehensively, as "la classe stérile." More important was the work of Turgot, whose *Réflexions sur la Formation et la Distribution des Richesses* were published in 1770. This book was written primarily to edify two young Chinamen who were his pupils.[1] Though somewhat influenced by Quesnay, much of Turgot's reasoning is both correct and original. He discusses the causes of inequality in the distribution, as between individuals, of landed property, dwelling upon the effects of inheritance and the way in which these vary with the size of individual families.[2] He also touches, but throws little light, upon the problem of the distribution of the produce of agricultural land between cultivators and owners.[3] The most valuable portion of his book is that which deals with the nature of interest and the causes which determine the

"The first systematic Treatise on Economics was probably written by a banker of Spanish name, born from an Irish family of the County Kerry, bred we know not where, carrying on business in Paris, but clearly murdered in Albemarle Street. The Treatise . . . . except that it was once mistakenly quoted by Adam Smith, has remained to the present day unknown or entirely misinterpreted in England" (*Ibid*, p. 183). "The present day" refers here to 1881.

[1] See the introduction to the English translation of this work in Professor Ashley's Economic Classics series.

[2] *Op. cit.*, § 12. [3] *Ibid*, § 14.

general rate of interest.[1] This last problem had already been discussed with some success in England by Petty[2] and Hume,[3] but Turgot carried his analysis considerably further and his definition of interest as " the price given for the use of a certain quantity of value during a certain time " is, in Professor Cassel's opinion, " a formula never afterwards surpassed in clearness and definiteness."[4]

[1] *Ibid*, § 72-82.
[2] *A Treatise of Taxes and Contributions* (1667).
[3] *Essays. Moral, Political and Literary* Part II. (1752).
[4] *Nature and Necessity of Interest*, pp. 20–21.

CHAPTER III.

SECOND PERIOD: 1776–1817.

§1. Adam Smith's *Wealth of Nations*, published in 1776, is chiefly noticeable, for our present purpose, by reason of its influence upon the framework within which subsequent economic ideas have been set. This influence has been specially strong upon later theories of distribution. From Adam Smith is derived the threefold classification of the factors of production—land, labour and capital—which has been so prominent in the work of later writers. This historic tripod of the economist is first introduced by Adam Smith in his discussion of the component elements of price. "As the price or exchangeable value of every particular commodity, taken separately, resolves itself into some one or other, or all of those three parts; so that of all the commodities which compose the whole annual produce of the labour of every country, taken complexly, must resolve itself into the same three parts, and be parcelled out among different inhabitants of the country, either as the wages of their labour, the profits of their stock, or the rent of their land. . . . . Wages, profit and rent are the three original sources of all revenue, as well as of all exchangeable value."[1] In subsequent chapters, however, Adam Smith fixes his attention upon the causes which determine wages *per head*, profits *per cent*, and rent *per acre*.[2] Of the causes which determine wages, profits and rent *in the aggregate*, or aggregate wages, profits and

[1] Book I., Ch. VI. (World's Classics Edn., Vol. I., p. 57).
[2] Compare Cannan, *Theories of Production and Distribution*, Chs VI. and VII.

rent, *relatively to one another*, he has practically nothing to say. His chapter on the variations of "wages and profit in the different employments of labour and stock"[1] has become famous, not so much because the reasoning is correct—in fact, it is far from correct, especially as regards profits,—but because it contains the germ from which later theories have sprung.

It is worth while to note here a point to which further reference will be made, namely that, whereas the causes of differences in wages per head in different occupations are identical, so far as wage-earners are concerned, with the causes of differences in individual incomes from labour, the causes of differences in profits per cent in different occupations are not identical with the causes of differences in individual incomes from capital. For the size of an income from capital evidently depends not only on the rate of profit, but on the quantity of capital.[2] Into the causes of differences in the quantities of capital owned by different individuals, Adam Smith made no enquiry. He regarded the distinction between the three factors of production as equivalent, broadly speaking, to a distinction between three classes of persons. "The whole annual produce . . . naturally divides itself into three parts, and constitutes a revenue to three orders of people; to those who live by rent, to those who live by wages and to those who live by profit. These are the three great, original and constituent orders of every civilised society."[3] To Adam Smith, as to most early

[1] Book I., Ch. X.

[2] Moreover, "profits" in Adam Smith's sense consist partly of income from capital and partly of income from business activity, a form of labour. But this distinction was not yet much appreciated.

[3] I., p. 287. He made no general enquiry into the causes of the inequality of individual incomes and does not appear to have felt, with his countryman Burns, that

"It's scarcely in a body's power
To keep at times from being sour
To see how things are shared."

economists, the "landowner" is essentially a rural land owner. The urban landowner, with his dramatic scoops of "unearned increment," had not yet impressed himself upon the popular imagination, nor had the long and slow decline of agricultural rents yet begun. "Merchants," no less than "country gentlemen," were a class apart, "an order of men," according to Adam Smith, "whose interest is never exactly the same with that of the public, who have generally an interest to deceive and even to oppress the public, and who accordingly have, upon many occasions, both deceived and oppressed it."[1] Even in 1776, however, a division of society into landowners, merchants and labourers was becoming crude and misleading, and the changes which have since occurred have rendered such a division still less applicable to modern conditions. The factors of production may be a necessary device of economic analysis, but in the modern world they do not, with any approach to accuracy, indicate the sources of income of groups of persons wholly distinct from one another.

§2. Adam Smith's admission that a disharmony may arise between the interest of merchants and the interest of the community is a striking, because almost a solitary, exception to his well-known doctrine that "every individual necessarily labours to render the annual revenue of the society as great as he can. He generally, indeed, neither intends to promote the public interest, nor knows how much he is promoting it. . . . He intends only his own gain; and he is in this, as in many other cases, led by an invisible hand to promote an end which was no part of his intention."[2] This doctrine is founded more

[1] I., p. 290.

[2] Book IV., Ch. II. (Vol. II., p. 33). In his *Theory of the Moral Sentiments* (pp. 264–5) Adam Smith goes even further. "The rich . . . . consume little more than the poor; and in spite of their natural selfishness and rapacity, though they mean only their own conveniency . . . they divide with the poor the produce of all

upon quasi-theological prepossessions than upon economic reasoning, and cannot be maintained without many qualifications. It has, however, the appealing quality of simplicity and induces a sleek optimism. Consequently it has proved very popular, and has been constantly quoted, with the weight of Adam Smith's authority, as an argument against many desirable changes. Probably, however, Adam Smith would have greatly modified this and other doctrines, had the *Wealth of Nations* been written twenty years later, with the Industrial Revolution in full blast.

§3. Bentham, whose *Introduction to the Principles of Morals and Legislation* was published in 1789, was not primarily an economist. But he influenced economists by his ethical "principle of utility" and his writings contain many suggestions of later economic doctrines. For example, "the greater the quantity of the matter of property a man is already in possession of, the less is the quantity of happiness he receives by the addition of another quantity of the matter of property, to a given amount."[1]

On the nature of property Bentham writes clearly, and his treatment of the problem of inheritance, from the point of view of public policy, is a great advance on anything previously attempted.[2] "The idea of property," he says, "consists in an established expecta-

their improvements. They are led by an invisible hand to make nearly the same distribution of the necessaries of life which would have been made had the earth been divided into equal portions among all its inhabitants; and thus, without intending it, without knowing it, advance the interest of the society, and afford means to the multiplication of the species. When Providence divided the earth among a few lordly masters, it neither forgot nor abandoned those who seemed to have been left out in the partition."

[1] *Works*, IX., p. 18.

[2] Adam Smith had contented himself with a few comments on the origin and evil effects of primogeniture and entails. *Wealth of Nations*, Book III., Ch. II. (Vol. I., pp. 428 ff).

tion; in the persuasion of being able to draw such and such an advantage from the thing possessed, according to the nature of the case. Now this expectation, this persuasion can only be the work of law. . . . It is only through the protection of law that I am able to inclose a field, and to give myself up to its cultivation with the sure though distant hope of harvest."[1]

Though keenly conscious of the fact that large inequalities of property and income lead to the waste of much potential happiness, Bentham regarded the security of established expectation as even more important than an approach towards equality. "When security and equality are in conflict, it will not do to hesitate a moment. Equality must yield."[2] But he qualifies this uncompromising doctrine in a manner more conformable to common sense than to his own premisses. "Is it necessary that between these two rivals, Security and Equality, there should be an opposition, an eternal war? . . . The only mediator between these contrary interests is time. When property by the death of the proprietor ceases to have an owner, the law can interfere in its distribution. . . . The question then relates to new acquirers who have formed no expectations."[3] This attempted distinction is unworthy of Bentham's logical mind. Did he never, one wonders, converse with an expectant heir?

And, in fact, when he comes to deal with inheritance, he shifts from this impossible ground. For "in framing a law of succession, the legislator ought to have three objects in view, first, a provision for the subsistence of the rising generation, second, a prevention of disappointment, third, the equalisation of fortunes."[4] But, if it be necessary to prevent disappointment, it is evident that

[1] *Theory of Legislation*, p. 112.
[2] *Ibid*, p. 120.
[3] *Ibid*, p. 122.
[4] *Ibid*, p. 177.

the "new acquirers" *have* formed expectations. And if it is legitimate, as Bentham holds, in some measure to disappoint these, then equality does not always yield to security.[1]

§4. He sketches a model law of succession on intestacy,[2] which is based upon two main principles, first, "a preference to the descending line, however long, over the ascending and composite lines," and second, no distinction, on the ground either of age or sex, between brothers and sisters. No relatives more remote than the parents of the deceased, or their descendants, should, he is inclined to think, be permitted to inherit on intestacy, and "in defect of relations in these degrees, the property should go into the public treasury."

"Those who accuse this plan of being too simple," says Bentham, "and who declare that at this rate the law would no longer be a science, may find wherewith to be satisfied, astonished and delighted, in the labyrinth of the English Common Law of successions. To give the reader an idea of the English Common Law on this subject, it would be necessary to begin with a dictionary of new words; and presently, when he should discover the absurdities, the subtleties, the cruelties, the frauds, with which that system abounds, he would imagine that I had written a satire, and that I had wished to insult a nation otherwise so justly renowned for its wisdom. It is to be observed, however, that the right of making a will reduces this evil within tolerably narrow limits. It is only the succession to the property of intestates which is

[1] It is possible, by a wider interpretation of the phrase "new acquirers," to make Bentham's position very nearly logical. Enact, for instance, that no person at present unborn shall inherit, and you stop the creation of all new expectations of inheritance, without defeating any existing expectation, except that of having an infant who shall inherit. But, though this may be what Bentham means, it is not what he says.

[2] *Ibid*, pp. 178–182.

obliged to pass through the crooked roads of the Common Law. Wills in that country may be compared to arbitrary pardons, which correct the severity of penal laws."[1]

The power to make a will Bentham would still permit, chiefly on the ground that " this power given to fathers renders the paternal authority more respectable."[2] But he regards " the institution called in France a *légitime*, by which each child is protected against a total disinheritance, as a convenient medium between domestic anarchy and paternal tyranny," though, " even this provision the father should have the power of taking away, for causes specified in the law and judicially proved."[3]

Apart, however, from the range of relatives who might conceivably inherit on intestacy, should a man have the right to leave his property " to whomsoever he chooses, either to distant relations or to strangers ? "

It may be argued, says Bentham, that a man " should have the means of cultivating the hopes and rewarding the care of a faithful servant, and of softening the regrets of a friend who has watched at his side, not to speak of the woman who, but for the omission of a ceremony, would be called his widow, and the orphans whom all the world but the legislator regards as his children. Again, if to enrich the treasury you deprive a man of the power of leaving his property to his friends, . . . he will be tempted to convert it into a life annuity. It is to encourage him to be a spendthrift and almost to make a law against economy."[4] He suggests, therefore, that in such cases the right of bequest should be limited to half the property and the other half should be " reserved for the public."[5]

Bentham's influence was curiously mixed. On many questions, including the problem of inherited wealth, he

[1] *Ibid*, pp. 182–3.
[2] *Ibid*, p. 185.
[3] *Ibid*, p. 185.
[4] *Ibid*, pp. 185–6.
[5] *Ibid*, p. 186.

encouraged clear and fearless thinking, yet, " so full was his mind of the terror of the French Revolution, and so great were the evils which he attributed to the smallest attack on security that, daring analyst as he was, he felt himself and he fostered in his disciples an almost superstitious reverence for the existing institutions of private property."[1] Here, as elsewhere, superstitious reverence turned to blindness, and many later economists have seemed quite unaware of the relevance of possible changes in the institutions of private property to the problems of distribution, which they have so laboriously studied.

§5. The value of the work of Malthus has been much disputed. " A mild, pottering person, I think Carlyle would have called him," says Bagehot, with " a mist of speculation over his facts, and a vapour of fact over his ideas."[2] He " discovered his ' Principle of Population ' in the course of an attempt to damp his father's hopes of progress. In bringing out the first edition he was inspired, not so much by the desire to publish the existence of the Principle, whatever it may have been, as by the desire to disprove the possibility of any great improvement in the material condition of mankind."[3]

His *Essay on the Principle of Population* was first published in 1798, and it is tempting, at first sight, to regard it as a study of the effects of an increase in the supply of labour upon real earnings. But the book is far too crude to stand any such modern interpretation. Its main thesis is that population tends to increase more rapidly than " subsistence," and that the wholesale starvation of mankind can only be averted by various checks on the growth of population. These checks are of two kinds, first, a high infant mortality, disease, war and the like, second, abstention from, or long postpone-

[1] Marshall, *Principles*, p. 760, n.
[2] *Economic Studies*, pp. 193–4.
[3] Cannan, *Theories of Production and Distribution*, p. 384.

ment of, marriage. Checks of the first kind obviously involve "misery and vice," and Malthus is inclined to fear that the same is also true of the second kind. Whether his thesis be tested by general reasoning or by observed facts, it is evident that it cannot stand. In some circumstances the tendency which he proclaimed exists, but in others a tendency of an exactly opposite character. It was part of Malthus' central argument that "the means of subsistence, under circumstances the most favourable to human industry, could not possibly be made to increase faster than in an arithmetical ratio."[1] In this argument he generally takes account both of the supply of labour and of the natural fertility of the soil, though sometimes he seems almost to ignore the fact that, whatever the fertility of the soil, an increase in the number of labourers must add *something* to the total product. But he leaves out of account altogether the possible effects of improvements in cultivation, due either to the growth of human knowledge or to the accumulation of capital. Nor did the possible development of new countries beyond the seas or of modern conditions of transport by land or sea ever fully occupy his mind.[2] Doubtless, as Marshall observes, "it was not Malthus' fault that he could not foresee"[3] these things, but the fact remains that they have blown this part of his thesis into thin air, and exhibited him, not indeed as a moral delinquent, but as a very inadequate economist.

Nor, if we turn to the other part of his central argument, has history been more kind. In all civilised countries at the present day, while both infant mortality and the

[1] Book I., Ch. I., 2nd edition.

[2] Though Ch. VI. of the first edition of his *Essay* dealt with emigration, and though in 1814 he wrote in favour of the Corn Laws (*Observations on the Corn Laws* and *Grounds of an Opinion on the Policy of Restricting Importation*).

[3] *Principles*, p. 180.

general death-rate are declining,[1] the birth-rate is declining still more rapidly. And this is not due to increasing abstention from marriage ; it is not even due to increasing postponement of marriage, to which Malthus chiefly pinned his hopes of improvement, but rather to the deliberate regulation of the size of families, a factor hardly dreamed of in his philosophy.[2]

§6. Of other writers falling within this period, the most notable is J. B. Say, whose *Traité d'Economie Politique* appeared in 1803. His discussion of the theory of value, which has been highly praised,[3] he regarded only as a necessary preliminary to a discussion of the proportions in which the product of industry is distributed among different individuals.[4] But this latter discussion he never attempted. The difficulties involved in it are not, at first sight, overwhelming, but they have proved sufficient to baffle not only Say, but other eminent economists, including Ricardo and Sidgwick, both of whom formally admitted the importance of this branch of economic theory.

[1] Or *were*, before the outbreak of war in 1914.

[2] In Book I., Ch. II. (2nd edition) of his *Essay* he refers only to deliberate prevention of births by the unmarried. The weakness of Malthus' arguments does not, of course, disprove the existence of a danger of over-population in the modern world. Compare Keynes, *Economic Consequences of the Peace*, pp. 8 ff.

[3] Compare Cassel, *op. cit.*, pp. 25–7.

[4] " Comment et dans quelles proportions s'opère entre les membres de la société la distribution de la chose produite " (*Traité*, II., p. 2).

CHAPTER IV.

THIRD PERIOD: 1817–1848.

§1. Rigidly, our third period dates from the publication of Ricardo's *Principles of Political Economy and Taxation* in 1817. We may, however, notice in passing a group of thinkers who fall partly within this, and partly within the preceding, period. These are the Communists and Socialists of the early nineteenth century, the most prominent of whom were St. Simon, Fourier and Robert Owen. From the spectacle of the French Revolution, which had terrified the milder sort of reformers, these men derived a belief in the possibility of large reconstructions of human society. It is unnecessary here to consider in detail either St. Simon's project of State Socialism or the schemes of Fourier and Owen for voluntary and local associations of producers.[1] It is interesting, however, to notice that St. Simon recognised existing laws of inheritance as a force strongly consolidating the present order. But, in his scheme for reorganising production by "the union of all instruments of labour in a social fund, which shall be exploited by association,"[2] the abolition of inheritance is only a trivial and necessary part of a larger whole. It was left for Mill to suggest that the objects of Socialists might be largely attained by changes in the law of inheritance.

St. Simon favoured a distribution "to each according

[1] For a bibliography of these writers, see Haney, *History of Economic Thought*, pp. 332–4, and for a good, but brief, account of their opinions, Kirkup, *History of Socialism*, Chs. II. and IV.

[2] Kirkup, *op. cit.*, p. 28.

to his work"; Fourier, on the other hand, a fancy distribution, under which a comfortable minimum income would be secured to every person, including women, and children more than five years old, and the residue would then be divided between labour, capital and "talent" in the ratio of 5 : 4 : 3.

The early Socialists are important in the development of economic thought, because they perceived clearly that institutions, which man has created, man may also change. It has been said that they "lacked a true historical sense of institutional development"[1]; but they lacked also that narrowness of forward vision which is apt to accompany the "historical sense." They assumed, no doubt, an unreasonably large and rapid change in average human nature. But their ideas helped, in time, to correct those of economists who, since they regarded both contemporary institutions and contemporary human nature as immutable, were blind to almost every possibility of economic improvement.

The early Socialists exerted a healthy, though gradual, influence on later writers and, in particular, on Mill. But both in outlook and in method they provide the strongest possible contrast to Ricardo.

§2. If the early Socialists were inclined to regard all men as industrious and unselfish idealists, Ricardo, as Marshall has remarked, was inclined to envisage mankind as wholly composed of city men. And the latter error is hardly less profound than the former.

The argument of Ricardo's *Principles* is both involved and acute, but it is his persistent habit, which Marshall and others have been at much pains to excuse, to use simple words ambiguously and not to qualify propositions, which, when stated without qualification, are obviously untrue. It is, therefore, difficult to read this

[1] Haney, *op. cit.*, p. 343 n.

book either with patience or with the full appreciation, which, in the judgment of its most ingenious interpreters, it deserves.

" Political Economy you think is an enquiry into the nature and causes of wealth," says Ricardo in a letter to Malthus, " I think it should rather be called an enquiry into the laws which determine the division of the produce of industry amongst the classes who concur in its formation."[1]

In his *Principles*, therefore, Ricardo deals chiefly with various problems of distribution. The Preface opens thus :—" The produce of the earth—all that is derived from its surface by the united application of labour, machinery and capital, is divided among three classes of the community, namely, the proprietor of the land, the owner of the stock or capital necessary for its cultivation, and the labourers by whose industry it is cultivated. But in different stages of society, the proportions of the whole produce of the earth which will be allotted to each of these classes, under the names of rent, profit and wages, will be essentially different. . . . To determine the laws which regulate this distribution, is the principal problem in Political Economy."[2] But, like J. B. Say, Ricardo, having stated this problem of proportionate shares and emphasised its importance, is mainly concerned, in what follows, with other matters.

Like Adam Smith, he seems to have regarded rent, profit and wages as constituting the incomes of three more or less separate classes of persons, but his treatment of the general relations of rent, profits and wages is full of irritating ambiguities. It is seldom clear whether he is dealing with rent per acre, profits per cent. and wages per head, or with aggregate rent, profits and wages, or with the proportions which these three aggregates bear

[1] Quoted by Haney, *op. cit.*, p. 234.
[2] *Works* (McCulloch's edition), p. 5.

to the total produce. These ambiguities have been exposed in great detail by Professor Cannan,[1] and are not worth further study here. It is worth mention, however, that Ricardo held, though on quite insufficient grounds, that " in an advancing state " the proportionate shares of rent and wages tend to rise, and that of profits to fall.

Defining rent as " that portion of the produce of the earth which is paid for the use of the original and indestructible powers of the soil,"[2] he argues that the rent of a given field is measured by the surplus of its produce over that obtainable with the same capital and labour from the poorest land in cultivation. This theory is too well known to need discussion here. It is primarily applicable to agricultural land, but may easily be generalised so as to apply to all land. It throws light upon the relative rents of different pieces of land, but not upon the absolute rent of any particular piece, when land in general is so scarce that all land yields some rent. Ricardo's deduction that " rent is not a component part of the price of commodities,"[3] is unhappily worded and has caused much barren controversy, though few would question his practical illustration that " corn is not high because a rent is paid, but a rent is paid because corn is high."[4]

His theory that wages are based upon a " natural price of labour," which varies with what later writers have called " conventional necessaries," is unsatisfactory, and his assumption that the numbers of the population tend to adjust themselves to changes in this " natural price " cannot, in the light of modern experience, be entertained.

His theory of profits is interesting as containing a

[1] *Theories of Production and Distribution*, pp. 341 ff.
[2] *Works*, p. 34.
[3] *Ibid*, p. 41. [4] *Ibid*, p. 39.

glimmer of later marginal theories of value. "The general profits of stock depend wholly on the profits of the last portion of capital employed on the land."[1] But there is no such glimmer in the first chapter of the *Principles*, where it is argued that the value of any commodity, subject to certain modifications, depends on the "quantity of labour which is necessary for its production." This theory, though commonly spoken of as "the Ricardian theory of value," is directly derived from a passage in Adam Smith, which Ricardo quotes in support of it.[2]

§3. Ricardo influenced subsequent thought both by his actual conclusions and hardly less by the conclusions which have been mistakenly attributed to him. But such mistakes have been due at least as much to the obscurity of his style as to lack of intelligence in some of his readers. Marx's *Capital* was professedly based on Ricardo's theory of value, Henry George's *Progress and Poverty* on Ricardo's theory of rent. But for Ricardo, neither Marxian nor Single Tax theories could have followed quite those lines with which we are to-day familiar.

Ricardo, furthermore, influenced subsequent thought by his general method of reasoning and by the lines of enquiry which he elected to pursue. He confirmed, for example, the growing tradition that economic science should deal with persons indirectly, through categories, rather than directly. The causes of the inequality of individual incomes did not, as such, ever engage his attention. "Ricardo, as became a stockbroker, took" the existing institutions of private property "for granted without any consideration."[3] His only reference to inheritance occurs in a passage in which he argues against "all taxes affecting the transference of property from

[1] *Ibid*, p. 378. [2] *Ibid*, p. 10.
[3] Cannan, *Theories of Production and Distribution*, p. 9.

the dead to the living" on the ground that "the capital of the country is diminished thereby."[1] Had he devoted even a single chapter of his *Principles* to the general aspects of inheritance, such a chapter, in the hands of a Marx or a Henry George, might have become the germ of a new social faith held as widely and with as passionate a degree of conviction as are Marxism and the Single Tax to-day. A movement against the inheritance by individuals of vast fortunes, had it chanced to find eloquent advocates, would probably have made no less strong an appeal to men's sense of justice and a far stronger appeal to their sense of the practicable than either of these two movements have done. Such a movement might, by now, have so far triumphed as to have profoundly modified the distribution of income in modern states.

§4. The immediate followers of Ricardo are far less famous men. James Mill, for instance, is better known as the eccentric father of John Stuart Mill, than as an original thinker. His *Elements of Political Economy*, published in 1821, consists of four chapters, entitled Production, Distribution, Interchange and Consumption, respectively. This classification of the subject-matter of economics, though slavishly followed by many later writers, had not been previously adopted in any English book.[2] Apart from this fact, the most original point in the *Elements* is James Mill's quaint doctrine that a limitation of the birth-rate among the working classes might be carried so far as to "raise the condition of the labourer to any state of comfort and enjoyment which may be desired."[3]

§5. McCulloch is generally regarded as a mere camp-follower of Ricardo, but this is not a just view. Not

[1] *Works*, p. 89.
[2] But see Cannan, *Theories of Production and Distribution*, p. 35.
[3] *Elements*, p. 53.

only did he write a book about inherited wealth,[1] but he devotes part of his *Principles of Political Economy*, published in 1825, to this same topic.

Thus, while arguing against Senior's "restricted system of Political Economy," he points out that "it is necessary that individuals should be permitted to exert some degree of authority over the disposal of property in the event of their death, and this being admitted, it follows that all the knotty questions respecting conditions in wills, the influence of primogeniture and entails compared with the system of equal partition, and so forth, come legitimately within the scope of the enquiries belonging to this science, the economist being bound to show the bearing of each system that may be proposed over the production and distribution of wealth."[2]

While holding that Government should interfere as little as possible in economic matters, he notes that it "must decide in regard to the property of those who die intestate and the effect to be given to the directions in wills and testaments."[3] McCulloch, therefore,—and the point is interesting—does not deduce complete freedom of bequest as a logical corollary of the individualism which he advocates.

"But, though the question be not free from difficulty," he proceeds, "we are inclined to think that they are right who argue in favour of the uncontrolled power of bequeathing."[4] He defends primogeniture on the ground that "the manner of living among the great landlords is that in which every one is ambitious to indulge; and their habits of expenditure, though sometimes injurious to themselves, act as powerful incentives to the ingenuity

[1] *A Treatise on the Succession to Property Vacant by Death, including Inquiries into the Influence of Primogeniture, Entails, Compulsory Partition, Foundations, etc., over the Public Interests* (1848).

[2] *Principles* (3rd edition), pp. ix.–x.

[3] *Ibid*, p. 188. [4] *Ibid*, p. 196.

and enterprise of the other classes."[1] Those who inherit large fortunes, he thinks, spend rather than accumulate, but on the whole this is a desirable state of things, for it causes the spread of a generous spirit throughout society, patronage of the arts and solicitude for the welfare of others.[2] On this and other grounds the English is to be preferred to the French Law. But "in regulating the transfer of property by will, a term should be fixed, beyond which the instructions of the testator should have no effect." The term provided by English Law, namely "lives in being, plus twenty one years," he is inclined to consider "as judicious a term as could be devised."[3]

McCulloch's treatment of inherited wealth is defective, in that he devotes too little attention to effects on distribution, as compared with effects on production. The same criticism applies to his advocacy of a national system of education, with regard to which his ideas, though not his tone, were much in advance of his time. "To render education productive of all the utility that may be derived from it, the poor should, in addition to elementary instruction (in the arts of reading, writing, and arithmetic) be made acquainted with the duties enjoined by religion and morality, and with the circumstances which occasion that gradation of rank and inequality of fortunes that usually exist." For "neither the errors nor the vices of the poor are incurable . . . and if education were made a means of instructing the poor in the circumstances which elevate and depress the rate of wages, and which, consequently, exert the most powerful influence over their condition, there can be little doubt that they would endeavour to profit by it."[4] A better system of education and a better law of

[1] *Ibid*, p. 197.
[2] *Ibid*, pp. 198–9.
[3] *Ibid*, p. 201.
[4] *Ibid*, p. 397.

inheritance are two of the most powerful means of reducing inequalities of income.[1] McCulloch at least perceived the importance of these two subjects, a thing which no previous economist had done.

§6. A more alert and critical mind was that of Senior, sometime Professor at Oxford and one of the authors of the famous Poor Law Report of 1834. Apart from this Report, his chief work[2] was *An Outline of Political Economy*, published in 1836. His analysis of cost of production, as a determinant of value, led him to his famous conception of "abstinence . . . . . . a term by which we express the conduct of a person who either abstains from the unproductive use of what he can command, or designedly prefers the production of remote to that of immediate results."[3] The fact that later writers have preferred to speak of "saving" or "waiting," rather than "abstinence," does not take away from the originality of Senior's thought on this point. Elsewhere he "is on the verge of great truths, but does not grasp them."[4] The following passage, for instance, might have become the starting point of an elaborate analysis of inherited wealth: "For all useful purposes the distinction of profits from rent ceases as soon as the capital from which a given revenue arises has become, whether by gift or by inheritance, the property of a person to whose abstinence and exertions it did not owe its creation."[5] But Senior did not develop the idea further.

§7. To complete the study of our third period, it only remains to consider, first, certain developments of economic thought outside England, and, second, the pernicious, but important, doctrine of the wages fund. This doctrine, though its parentage has been much disputed, is at least indisputably English.

[1] Compare Part IV. below, especially Chs. III. and X.
[2] For a list of his other writings see Haney, *op. cit.*, p. 263 n.
[3] *Outline*, p. 58. [4] Haney, *op. cit.*, p. 269. [5] *Outline*, p. 129.

During the first half of the nineteenth century English economic thought influenced foreigners far more strongly than that of foreigners influenced Englishmen. Both Adam Smith and McCulloch, for example, were far more widely read on the Continent than was any foreign economist in this country. Yet notable work was being done on the Continent in those days.

Thus von Thünen in his *Isolated State* (*Der Isolirte Staat*), the first volume of which was published in 1826,[1] enunciated a theory of payment, both for capital and labour, according to marginal productivity.[2]

Cournot, again, whose *Recherches sur les Principes Mathématiques de la Théorie des Richesses* appeared in 1838, played an important part in the development of economic method. For he was the first to apply, with any success, the forms and symbols of mathematical analysis to economic problems. Only one[3] out of his twelve chapters has much bearing on distribution, but his methods influenced later writers and were applied by them to all branches of economic theory. Cournot's influence was not immediate. For nearly forty years he remained unknown, till first Jevons[4] and then a train of other writers acknowledged the value of his work, which, according to Professor Edgeworth, "is still the best statement in mathematical form of some of the highest generalisations in economic science."[5]

§8. We may now turn back to the doctrine of the

[1] Subsequent volumes appeared in 1850 and 1863, but von Thünen states that his marginal theories, though only appearing in the later volumes, had been present in his mind in 1826, but had seemed too radical for publication! Compare Haney, *op. cit.*, p. 285 n.

[2] Both Marshall (*Principles*, p. 523 n.) and Professor J. B. Clark (*Distribution of Wealth*, p. 324 n.) have testified to von Thünen's originality on this point.

[3] Ch. XI. *De la Revenue Sociale.*

[4] *Theory of Political Economy*; see also Marshall, *Principles*, Preface, p. xix., and p. 101 n.

[5] *Palgrave's Dictionary of Political Economy*, Vol. I., p. 445.

wages fund, which forms a link between our third and fourth periods. For though, as has been observed, its parentage is doubtful,[1] it was certainly born during our third, and lived on into our fourth, period, being at first adopted by John Stuart Mill, by whom it was afterwards put to death, as it richly deserved.

According to this doctrine, as generally understood, not only did the rate of wages depend solely *in the long run* upon the ratio of capital to population—a comparatively harmless fallacy—but the total sum payable in wages *at any given time* was represented to be a fixed quantity.

The first part of the doctrine led merely to the conclusion that it was to the interest of labour to increase the supply of capital and to reduce the birth-rate, but the second part led to the further conclusion that no attempts by Trade Unions to raise aggregate wages could possibly succeed. For the most that a Trade Union could effect was a transference of wages from one group of workers to another. It is difficult to conceive a doctrine more likely to deaden the efforts of the working classes to improve their lot, or to excuse employers in repressing such efforts in the alleged interests of the workers themselves.[2] But the latter, happily, were even less aware then than now of current economic teaching, nor, in any case, is it likely that their leaders would have been much impressed by such reasoning. The doctrine of the wages fund, therefore, did less practical harm than might have been expected.

[1] Various commentators have fathered it upon Malthus, Ricardo, James Mill, McCulloch and Senior, and such, or somewhat such, a doctrine was apparently held by all these writers.

[2] Cairnes, *Leading Principles*, Part II., Ch. I., and Taussig, *Wages and Capital*, Part II., Ch. XI., have attempted to "interpret" the doctrine, so as to secure for it a respectable resurrection.

CHAPTER V

FOURTH PERIOD: 1848–1871.

§1. In 1848 John Stuart Mill published his *Principles of Political Economy*, believing that the time had now come when "the field of political economy should be resurveyed in its whole extent."[1] For such a task he was better equipped than his predecessors in certain important respects. He had received a very thorough and varied education, though an odd one.[2] Moreover, "their most vital fault," says Marshall of Ricardo and his immediate followers, "was that they did not see how liable to change are the habits and institutions of industry. In particular they did not see that the poverty of the poor is the chief cause of that weakness and inefficiency which are the causes of their poverty; they had not the faith that modern economists have in the possibility of a vast improvement in the condition of the working classes."[3] But no such fault can be charged against Mill, who, by 1840, had come to regard "all existing institutions and social arrangements as merely provisional,"[4] and whose opinions grew more and more advanced as he grew older.

His *Principles* consist of five Books, dealing respectively with Production, Distribution, Exchange, the Influence of the Progress of Society on Production and Distribution, and the Influence of Government.

[1] *Principles* (Ashley's edition), p. xxvii.

[2] See the almost pathetic first chapters of his *Autobiography*.

[3] *Principles*, p. 763.

[4] *Autobiography*, p. 134.

In the course of some "preliminary remarks" he observes that, "unlike the laws of Production, those of Distribution are partly of human institution; since the manner in which wealth is distributed in any given society, depends on the statutes or usages therein obtaining. But though governments or nations have the power of deciding what institutions shall exist, they cannot arbitrarily determine how those institutions shall work."[1] This passage, though not very happily worded, contains an important and much neglected truth. Law in general, and particularly laws relating to property and the conduct of industry, have profound effects upon the distribution of income between persons. But such effects have escaped the notice of a great multitude of later economists, whose Theories of Distribution are mere offshoots of their Theories of Value. A correct Theory of Value is, indeed, a necessary basis for a correct Theory of Distribution, but a complete Theory of Distribution is far more than a few particular applications of a general Theory of Value.[2]

§2. Mill begins his Book on Distribution with two remarkable chapters on Property which, under the joint influence of his wife and the Socialists, underwent considerable changes in successive editions. The quotations which follow are from the text of the seventh edition, the last to be revised by Mill, which was published in 1871. "If," he writes, "the choice were to be made between Communism with all its chances, and the present state of society with all its sufferings and injustices, . . . all the difficulties, great or small, of Com-

[1] *Principles* (Ashley's edition), p. 21.

[2] The curious narrowness of many subsequent Theories of Distribution is partly due, no doubt, to a perception by later writers that Mill's attempt to deal with such matters as the general level of wages, before he had set forth the general determinants of value, was bound to fail. Compare Marshall, *Principles*, p. 824. But such explanations are not justifications.

munism would be but as dust in the balance. But . . . the principle of private property has never yet had a fair trial in any country; and less so, perhaps, in this country than in some others. . . . The laws of property have never yet conformed to the principles on which the justification of private property rests. They have made property of things which never ought to be property, and absolute property where only a qualified property ought to exist. They have not held the balance fairly between human beings, but have heaped impediments upon some, to give advantage to others; they have purposely fostered inequalities, and prevented all from starting fair in the race. That all should indeed start on perfectly equal terms is inconsistent with any law of private property; but if as much pains as has been taken to aggravate the inequality of chances arising from the natural working of the principle, had been taken to temper that inequality by every means not subversive of the principle itself; if the tendency of legislation had been to favour the diffusion, instead of the concentration, of wealth—to encourage the subdivision of the large masses, instead of striving to keep them together; the principle of individual property would have been found to have no necessary connection with the physical and social evils, which almost all Socialist writers assume to be inseparable from it."[1]

This classical passage goes right to the heart of the problem of distribution between persons. "Private property," Mill continues, "in every defence made of it, is supposed to mean the guarantee to individuals of the fruits of their own labour and abstinence. The guarantee to them of the fruits of the labour and abstinence of others, transmitted to them without any merit or exertion of their own, is not of the essence of the institution.

[1] *Principles*, pp. 208–9.

. . . To judge of the final destination of the institution of property, we must suppose everything rectified which causes the institution to work in a manner opposed to that equitable principle, of proportion between remuneration and exertion, on which, in every vindication of it that will bear the light, it is assumed to be grounded. . . . . The question of Socialism is not, as generally stated by Socialists, a question of flying to the sole refuge against the evils which now bear down humanity, but a mere question of comparative advantages, which futurity must determine."[1]

§3. From this point Mill passes naturally to inheritance. "No presumption in favour of existing ideas on this subject," he observes, "is to be derived from their antiquity."[2] For in ancient times nearly all relevant considerations, and, in particular, the organisation of the family and the state, were widely different from what they are now.

It is important, however, in effecting any change in the law of inheritance, not to check individual saving, unless some counterbalancing advantage can be shown. For, "while it is true that the labourers are at a disadvantage compared with those whose predecessors have saved, it is also true that the labourers are far better off than if those predecessors had not saved. They share in the advantage, though not to an equal extent, with the inheritors."[3]

Mill favours large changes in the existing law. On the question of succession on intestacy, as far as practical proposals are concerned, he follows Bentham. "I see no reason," he says, "why collateral inheritance should exist at all. Collaterals have no real claims, but such as

[1] *Ibid*, p. 209. Compare Cannan, *Theories of Production and Distribution*, pp. 404–7, for a statement to a similar effect regarding the modern economists' attitude towards Socialism.

[2] *Ibid*, p. 221.

[3] *Ibid*, p. 219.

may be equally strong in the case of non-relatives, and in the one case as in the other, where valid claims exist, the proper mode of paying regard to them is by bequest."[1]

But "the claims of children are of a different nature. . . . . The parent owes to society to endeavour to make the child a good and valuable member of it, and owes to the children to provide, so far as depends on them, such education, and such appliances and means, as will enable them to start with a fair chance of achieving by their own exertions a successful life. To this every child has a claim; and I cannot admit that, as a child, he has a claim to more."[2] After such claims have been met, therefore, "the surplus, if any, I hold that the State may rightly appropriate to the general purposes of the community."[3]

Mill next enquires what limitations, if any, should be imposed upon the right of bequest, which "like all other proprietary rights, and even in a greater degree than most . . . may be so exercised as to conflict with the permanent interests of the human race."[4] Obvious examples of such exercise are the creation of perpetuities and the attachment of rigid and unalterable conditions to public bequests. Under most systems of law, the former are rightly forbidden and the latter subject to revision with the lapse of time.

As to restrictions on the right of bequest, similar to those of the modern French law, which was "adopted as a democratic expedient, to break down the custom of primogeniture, and counteract the tendency of inherited property to collect in large masses," Mill remarks, "I agree in thinking these objects eminently desirable; but the means used are not, I think, the most judicious."

"Were I," he continues, "framing a code of laws according to what seems to me best in itself, without

[1] *Ibid*, p. 223. [2] *Ibid*, p. 224.
[3] *Ibid*, p. 225–6 [4] *Ibid*, p. 226.

regard to existing opinions and sentiments, I should prefer to restrict, not what any one might bequeath, but what anyone should be permitted to acquire, by bequest or inheritance. Each person should have power to dispose by will of his or her whole property; but not to lavish it in enriching some one individual, beyond a certain maximum, which should be fixed sufficiently high to afford the means of comfortable independence. The inequalities of property which arise from unequal industry, frugality, perseverance, talents, and to a certain extent even opportunities, are inseparable from the principle of private property, and if we accept the principle we must bear with these consequences of it; but I see nothing objectionable in fixing a limit to what anyone may acquire by the mere favour of others, without any exercise of his faculties, and in requiring that if he desires any further accession of fortune, he shall work for it."[1] In a later passage Mill proposes to apply this limitation to acquisitions by gift as well as by inheritance.

Mill's discussion of inherited wealth is his most important contribution to economic thought. It is not merely an advance on all previous discussions, but is as good as anything which has since been written upon the subject. For, of the few economists who have not wholly ignored it, none has written with a surer grasp of the principles, or with a keener sense of the importance of the problems, which it involves.

§4. Mill's views on the "unearned increment" of land value are better known than his views on inheritance, and have had more influence upon the practice of statesmen. He observes that in "the ordinary progress of society" many persons who own land "grow richer, as it were, in their sleep, without working, risking, or economising."[2] He therefore advocates a tax upon such

[1] *Ibid*, p. 227–8. [2] *Ibid*, p. 818.

"spontaneous increases" in the value of land, and sees no objection, in principle, to the rate of such a tax reaching a hundred per cent. In practice, however, "for fear of miscalculation" by the valuers, he would keep the tax "considerably within the amount thus indicated," and there would thus be "an assurance of not touching any increase of income which might be the result of capital expended or industry exerted by the proprietor."

§5. When, however, we turn from Mill's discussion of the laws of property and their effects upon the distribution of income to what he himself describes as "the purely scientific part" of his *Principles*, we find less originality of treatment. For, over the range of problems covered by Ricardo's writings, "it seems clear," as Professor Cannan remarks,[1] "that Mill became somewhat prematurely committed to a set of economic doctrines," and that "the structure of his theories of production and distribution, though plastered over with a fresh stucco of explanation and limitation, had been built twenty years earlier." But one or two points stand out and deserve consideration.

Mill's treatment of differences of wages, for example, is based upon that of Adam Smith, but is a distinct improvement upon it. Most of the cases discussed by Adam Smith are "cases in which inequality of remuneration is necessary to produce equality of attractiveness, and are examples of the equalising effect of free competition," but "cases of real inequality . . . arise from a different principle."[2] For "the superiority of reward is not here the consequence of competition, but of its absence."[3] Thus "the really exhausting and the really repulsive labours, instead of being better paid than others, are almost invariably paid the worst of all, because

[1] *Theories of Production and Distribution*, pp. 389–391.

[2] *Principles*, p. 390. [3] *Ibid*, p. 391.

performed by those who have no choice."[1] And likewise, "the fact that" in many occupations "a course of instruction is required, of even a low degree of costliness, or that the labourer must be maintained for a considerable time from other sources, suffices everywhere to exclude the great body of the labouring people from such occupations."[2]

"So complete, indeed, has hitherto been the separation, so strongly marked the line of demarcation, between the different grades of labourers, as to be almost equivalent to an hereditary distinction of caste . . . The changes, however, now so rapidly taking place in usages and ideas, are undermining all these distinctions; the habits or disabilities which chained people to their hereditary condition are fast wearing away, and every class is exposed to increased and increasing competition from at least the class immediately below it."[3]

Except that he somewhat exaggerates the rapidity of such "changes in usages and ideas," little fault can be found with Mill's treatment of this part of the problem of wages. It is mostly platitude to the modern student, but it was new doctrine to Mill's readers.

His discussion of the general level of wages, on the other hand, is very inadequate, though not more so than his predecessors'. It was not till 1869 that, in a review of Thornton's *Labour*, he formally abandoned the doctrine of the wages fund. Thornton's argument, he said, had convinced him—though it seems probable that it only put the finishing touch to a long intellectual process—that "the doctrine hitherto taught by all or most economists, including myself, which denied it to be possible that trade combinations can raise wages, . . . is deprived of its scientific foundation, and must be thrown

[1] *Ibid*, p. 388. [2] *Ibid*, p. 392.
[3] *Ibid*. p. 393.

aside."[1] But at the age of sixty-three Mill was past constructive mental work—nor is this surprising, when his early education is borne in mind—and he never formulated any alternative theory of general wages.

Even in his *Principles*, however, Mill holds only a "devitalised wages-fund doctrine."[2] He retains the delusive formula that "wages depend . . . on the proportion between population and capital,"[3] but he so "interprets" it as to reduce its significance to that of a truism. No doubt, if, when we speak of "population," we mean the total number of wage-earners, and if, when we speak of "capital," we mean the total sum paid in wages, the formula is correct enough. But then we are simply not speaking English, and furthermore, out of sentimental respect for "the wrong opinions of dead men," we are making it needlessly hard for the living to form correct opinions. Such "interpretations" have often warped the development of economic theory, and Mill, as one of the earliest writers addicted to such practices, must bear his share of the blame.

His obsession with Malthus' *Principle of Population* was one of the causes which made him cling to the wages fund formula. For to represent wages as varying inversely as population, was to supply a potent argument for the limitation of working class families. This obsession is evident at many points in Mill's *Principles*. He can see, for example, no other objection to the establishment by law of a high minimum wage, except that "there would" then "be nothing to hinder population from starting forward at its rapidest rate."[4] From this

[1] See Mill's *Dissertations and Discussions*, IV., pp. 42 ff, and Appendix O to Ashley's edition of the *Principles*.

[2] Haney, *History of Economic Thought*, p. 356.

[3] *Principles*, p. 343. And again, "if wages are higher at one time or place than at another, if the subsistence and comfort of the class of hired labourers are more ample, it is for no other reason than because capital bears a greater proportion to population." *Ibid*, p. 349.

[4] *Ibid*, p. 363.

and other instances it is clear that his view both of the causes and of the effects of the growth of population were far too simple to be true.

§6. Apart from some of the chapters on Currency and International Trade, which do not here concern us, Mill's Book III, on Exchange, is the least original part of the *Principles*. But this is sufficiently accounted for by his remark that "happily there is nothing in the laws of value which remains for the present or any future writer to clear up; the theory of the subject is complete."[1]

§7. Book IV, concerning the Influence of the Progress of Society on Production and Distribution, deals with "the Dynamics," whereas the three preceding Books had dealt with "the Statics of Political Economy."[2]

Mill observes that "the characteristic features of what is commonly meant by industrial progress resolve themselves mainly into three, increase of capital, increase of population, and improvements in production, understanding the last expression in its widest sense to include the process of procuring commodities from a distance, as well as that of producing them."[3] It therefore becomes of interest to determine how these three sorts of changes, taken separately, affect the distribution of the total produce between the three factors of production, that is to say, between wages, profits (or interest) and rent.

Mill is here dealing with problems of real importance, although the solutions he proposes cannot be accepted as they stand—and still less the reasoning, by which the solutions are reached. The chief reason why much of his argument is incorrect is because he is less careful here than elsewhere to "interpret" his wages fund doctrine to mean something which it does not say. When "interpreted" it leads nowhere, but, when taken at its face value, it leads to positive error.

[1] *Ibid*, p. 436. [2] *Ibid*, p. 695. [3] *Ibid*, p. 701.

Following the unsatisfactory tradition started by Adam Smith, Mill concerns himself primarily with the effects of these various changes upon wages per head, profits per cent. and rent per acre. Aggregate wages, profits and rent are only considered incidentally, and the relative shares of the three factors of production in the total produce are scarcely considered at all, though later he says that "the ordinary progress of a society which increases in wealth is at all times tending to augment the incomes of landlords; to give them both a greater amount and a greater proportion of the wealth of the community."[1] But no evidence is advanced in support of this opinion, which was probably taken uncritically from Ricardo.

Mill considers four main cases of industrial progress. In the first, population is increasing, while capital and knowledge are stationary; in the second, capital is increasing, while population and knowledge are stationary; in the third, capital and population are increasing "with equal rapidity,"[2] while knowledge is stationary; in the fourth, capital and population are stationary, while knowledge is increasing. In the first case, he argues, rent and profits rise, while wages fall; in the second, rent and wages rise, while profits fall; in the third, rent rises, profits fall and wages remain stationary; in the fourth, wages will generally rise, profits will remain stationary, and rent will either remain stationary or fall according to circumstances.

In the course of the argument thus summarised, Mill is not wholly lucid. In particular, there is frequent ambiguity as between immediate and ultimate effects. He has really done little more than bring these "dynamic" problems to the notice of subsequent writers.

[1] *Ibid*, pp. 710–20.

[2] "The test of equality being that each labourer obtains the same commodities as before, and the same quantity of those commodities." *Ibid*, p. 714.

§8. "The rapid success of the *Political Economy*," says Mill, "showed that the public wanted, and were prepared for, such a book."[1] But in spite of this evidence of public interest in economic questions, no other economist of the first class arose in England till Jevons published his *Theory of Political Economy* in 1871.[2]

The stagnation of the intervening years may be inferred from the fact that the most striking contributions to economic controversy came from literary men, such as Carlyle and Ruskin. But neither the "windy prophesyings" of the one nor the shrill outcry of the other did anything to advance economic thought. They merely confused the issues and shook the confidence of many warm-hearted men in the value of clear thinking on economic questions. They had strayed, as it were, from their own well-settled, old-world country, where art and history flourish and certain sorts of fine writing, into an unfamiliar land, where all the conditions of life were different and the hard work of development had only just begun. And there they proceeded alternately to lecture and to abuse the pioneers. Hardly less successful would be the visit of a cockney vicar to the Canadian prairies, who should propose by the recitation of the litany to bring grain to market, or to make sermons do the work of steam ploughs.[3]

[1] *Autobiography*, p. 135.

[2] Compare Cannan, *Theories of Production and Distribution*, Preface to the First Edition, and Foxwell, Introduction to the English translation of Menger's *Right to the Whole Produce of Labour*, p. lxxviii.

[3] Mr. J. A. Hobson in his *John Ruskin, Social Reformer* boldly attempts "a vindication of Mr. Ruskin's claim to have placed Political Ecónomy upon a sounder scientific and ethical foundation than it had hitherto possessed, and to have built upon that foundation an ideal of a prosperous human society." It is very strange that a writer with the general outlook of Mr. Hobson should think so highly of one who, as Mr. Hobson himself reminds us, was an admirer of the "game of war" as the occupation in which "the full personal power of the human creature" finds its noblest expression; who was an enemy of all education of women, holding that "the essentially right life for all womankind is that of the Swiss paysanne"; who hated democracy

But, while economic thought, properly so called, was stagnant in England, there were noticeable movements abroad. It is sufficient here to mention Carey in America, Bastiat in France, and in Germany the so-called Historical School and the so-called Scientific Socialists.

§9. Carey was writing on economic matters from 1835 to 1860.[1] Although, therefore, much of his work was published before Mill's *Principles*, in which, indeed, some of his ideas are criticised, it seems most appropriate to deal with him here. His reputation chiefly rests upon his claim to be "the father of American Protection," upon his attack on the law of diminishing returns, as he understood it, and upon his argument that the doctrines of Malthus must be untrue, because otherwise "the Creator would have been inconsistent with Himself."

As regards the theory of distribution, his main conclusions are[2]:—"That labour, when aided by capital, becomes more productive, and is thus improved in its quality.

and loved feudalism, even in its modern decrepitude, as the following astonishing sketch of "policy" indicates:—"In the case of the great old families, which always ought to be, and, in some measure, however decadent, still truly are, the noblest monumental architecture of the kingdom, so much land ought to be granted to them in perpetuity as may enable them to live thereon with all circumstances of state and outward nobleness; but their incomes must . . . be fixed and paid by the State, as the King's is."

The quality of Ruskin's thought on purely economic questions is exemplified by his petulant desire to "destroy most of the railroads in England, and all the railroads in Wales," and by his proposal that all machinery should be legally prohibited in agriculture and in many branches of industry, because it "throws a number of persons out of wholesome employment, who must thenceforward either do nothing, or mischief."

And yet Mr. Hobson finds in Ruskin a greater economic wisdom and a deeper humanity than in Mill!

[1] His *Principles of Political Economy* were published in three volumes between 1837 and 1840, his *Past, Present, and Future* in 1848, his *Harmony of Interests* in 1851, and his *Principles of Social Science* in three volumes between 1857 and 1860.

[2] The following quotation is from a "summary of conclusions" appearing in Chapter IX. of his *Principles of Political Economy*, I., pp. 140–3. The italics are all Carey's.

That every improvement in the quality of labour is attended by an increased facility of accumulation.

That this increased power of accumulating capital tends to lessen the value, in labour, of that already existing, and to diminish the *proportion* of the product of labour that can be demanded in return for permitting it to be used.

That the labourer is thus enabled to retain a constantly increasing *proportion* of the commodities produced.

That labour is, by its improvement of quality, rendered so much more productive, that the *diminution in the proportion* claimed by the capitalist is attended by *an increase in the quantity of commodities* obtained in return for the use of any given amount of capital . . . Such we believe to be the natural laws, regulating the production and distribution of wealth, that may be deduced from the experience of the world for hundreds, and thousands, of years. That they are so we feel assured, because they are, like all the other laws of nature, *simple and therefore likely to be* universally true. They have another characteristic of nature, in the perfect harmony of interests indicated by them."

All this sorry logic, with its background of cheap natural philosophy, makes Mill loom gigantic by comparison. But Carey's absurd theory of distribution found adherents.

§10. The chief of these was Bastiat,[1] whose *Harmonies Economiques* was published in 1850.[2] This curious book opens with a long dedication "to the youth of France," the substance of which is contained in one sentence: "All that is necessary to the gradual and peaceful development of humanity is that its tendencies should

[1] Others were Dühring in Germany and Ferrara in Italy.

[2] Bastiat's *Sophismes Economiques*, published in 1846, has a more permanent interest than this book, but does not directly touch distribution.

not be disturbed, but have the liberty of their movements restored."

As regards distribution, Bastiat prcceeds in this way. " Providence, in justice and mercy, has assigned a nobler part to Labour than to Capital in the work of progress, and has afforded a stimulant more efficacious, and a recompense more liberal, to the man who lives by the sweat of his brow, than to the man who subsists upon the exertions of his forefathers. In fact, having established that every increase of capital is followed by a necessary increase of general prosperity, I venture to lay down the following principle with reference to the distribution of wealth—a principle which I believe will be found unassailable.

" In proportion to the increase of capital, the absolute share of the total product falling to the capitalist is augmented, and his relative share is diminished ; while, on the contrary, the labourer's share is increased both absolutely and relatively. I shall explain this more clearly by figures."[1] Here follow some arbitrarily chosen numerical " illustrations." But " the demonstration," he continues, " is two-fold. First of all we must prove that the *relative* share of the product falling to the capitalist goes on continually diminishing. This is not difficult, for it only amounts to saying that the more abundant capital becomes, the more interest falls. Now this . . . is self-evident . . .

" It remains for me to prove that the absolute share falling to the capitalist goes on continually increasing. It is very true that the tendency of interest is to fall. But when and why? When, and because, capital becomes more abundant . . . Now I maintain that the percentage, in its tendency to fall, neither does nor can follow a progression so rapid that the sum total of

[1] *Economic Harmonies* (Stirling's translation), I., p. 183.

interest should be smaller when capital is abundant than when it is scarce . . . A result so contradictory and impossible, an anomaly so strange, would be met with the simplest and most agreeable of remedies; for then, in order to increase your income, it would only be necessary to consume half your capital. A happy and whimsical age it would be when men could enrich by impoverishing themselves."[1]

The logical indecency of all this will make the modern economist blush. Yet Bastiat and Carey propounded a question, which few of their successors have attempted to answer, namely: What are the effects of economic progress upon the absolute and relative shares of the various factors of production. But the fact that such absurd arguments could be put forward by writers then thought to be "authoritative," shows how little had yet been done towards solving these central problems of distribution.[2]

Bastiat concludes his theorising with this rhapsody. "Men of philanthropy! Lovers of equality! Blind defenders, dangerous friends of the suffering classes . . . why do you begin by unsettling all interests and shaking all received opinion? . . . Do you not see that this community after which you sigh and which is to inaugurate the Kingdom of God upon Earth, has been already thought of and provided for by God Himself? . . . Do you not see that this community is realised more and more every day in virtue of his admirable decree? Study, then, the social mechanism as it came from the hand of the Great Mechanician, and you will find that it testifies to a universal solicitude, which far outstrips your dreams and chimeras. You will, then,

[1] *Ibid*, I., pp. 184–5.

[2] It seems clear that Bastiat derived most of his theory of distribution from Carey, but the point has been disputed. See Haney, *History of Economic Thought*, pp. 258–9.

I hope, in place of presumptuously pretending to reconstruct the divine workmanship, be content to admire and bless it."[1] But Bastiat does not explain which law, out of the many existing or imaginable laws, of inheritance and bequest forms part of "the natural social order, which has been so skilfully arranged by the Divine Architect."[2]

§11. The German economists of this period contributed little to the theory of distribution. The German Historical School spent much energy upon a dreary and sterile controversy over economic method, into which English writers, Cliff Leslie, Bagehot, Mill, Jevons and others were also drawn.[3] The leaders of this school were Roscher, Hildebrand, and Knies,[4] of whom Roscher is the most interesting. Though he and his school had little good to say of Adam Smith and Ricardo, Roscher reproduced, in substance, the traditional English theories of wages per head, interest per cent. and rent per acre.

He thinks that "the rate of wages when high generally adds to the efficiency of labour, which cannot be claimed for interest or rent,"[5] and that "the best distribution of national income among a people is that which enables them to enjoy the greatest amount and variety of real goods, and permanently to produce real goods in an increasing quantity and variety."[6] But he appears to see that this is an inadequate formula and goes on to amplify it. In a "healthy distribution" there should be a "harmony of large, medium, and small incomes."

[1] *Economic Harmonies*, I., pp. 191–2.

[2] *Ibid*, p. 191.

[3] For a review of this controversy, see J. N. Keynes, *Scope and Method of Political Economy*.

[4] Roscher's chief work is his *Volkswirtschaft*, of which the first volume was published in 1854. Hildebrand's *Nationalökonomie der Gegenwart und Zukunft* was published in 1848 and Knies' *Die politische Oekonomie vom Standpunkt der geschichtlichen Methode* in 1853.

[5] *Volkswirtschaft* (English Translation), II., p. 117.

[6] *Ibid*, p. 168.

Medium incomes should be the most numerous, and there should thus be a numerous class of persons willing to devote part of their time to unpaid work for the community, "as jurymen, overseers of the poor, municipal officers and representatives of the people." There should also be a fair number of large fortunes, and even of large inherited fortunes. For there must not be too limited a choice of men for the highest offices of State, which can only safely be filled by persons, "who would not lose their social position by a cessation of their salaries. . . . The transaction of the most important political business, especially that which relates to foreign affairs, requires a peculiar elasticity of mind, and a capacity for routine on the grandest scale, which, with very rare exceptions, can be acquired only by habituation to these matters from childhood and which are lost as soon as the care for food is felt." But for most men it is a good thing that they must work and save in order to grow rich.[1]

He considers that "the common assertion of the Socialists that the inequality of property is terribly on the increase is as far from being proved as is the assertion of Hildebrand to the contrary,"[2] for we have no reliable and adequate information on the matter. It would, however, be undesirable if inequality were to increase, and "the ideal of progress demands that the increased outlay made possible by increased production should be made only for worthy objects, and chiefly by the rich, while the middle and lower classes should continue to make savings and thus contribute to wipe out differences of fortune."[3] This is not a very practical ideal but, unlike many other economists, Roscher at any rate

[1] *Ibid*, pp. 174 ff.

[2] *Ibid*, p. 180. Hildebrand's optimistic but insufficient argument is on pp. 245 ff. of the first volume of his *Nationalökonomie*.

[3] *Ibid*, p. 217.

perceived that the distribution of income between persons, as distinct from factors of production, was a subject deserving separate discussion in a treatise on general economics.

§12. Contemporary with the rise of the German Historical School is the rise of German Scientific Socialism. The latter movement, like the former, is distinguished by three chief names—Marx, Rodbertus, and Lassalle.

Marx published the first volume of his *Capital* in 1867, but his influence had then already been strong in Germany for nearly twenty years.[1] The second and third volumes were published in 1885 and 1894 after his death. They are comparatively unknown and unimportant and the third volume is on many points inconsistent with the first. It is the first which has so powerfully influenced working class thought throughout the world and which contains the clearest exposition of the Marxian system.

This system has many fundamental defects. It reposes to some extent upon false analogies from Hegelian philosophy. Thus the course of history is divided into three eras. In the primitive era production is by each man for himself; in the capitalistic era production is by each man for others, that is to say for Society; in the Socialistic era production will be by Society for itself. Marx speaks of the primitive era as the "thesis," of the capitalistic as the "antithesis," and of the socialistic as the "synthesis," of economic development, and seems to imagine that this use of unnecessary words helps to prove that transition from a capitalistic to a socialistic state is inevitable. But it has been acutely remarked that "the Socialistic state ought, according to the development conception of the dialectic method, to

[1] The celebrated Communist Manifesto of Marx and Engels had appeared in 1848, and contains the central ideas subsequently elaborated in *Capital*.

form a starting point of a new triad, the thesis for a new antithesis; but if this idea ever occurred to Marx, he must have thought that 'sufficient unto the day is the evil thereof,' for he nowhere gives a hint of anything better than the Socialistic community."[1]

As regards distribution, Marx's three chief doctrines are his iron law of wages, his theory of value and his law of the concentration of capital. Logically, the first two are closely connected with one another, while the third stands or falls independently.

He held, and believed that he was merely following Ricardo in holding,[2] that the value of every commodity is determined by the quantity of labour required for its production. The wages of labour, he went on to argue, are determined by the amount of the barest necessaries which will just prevent the labourer and his family from starving to death. The cost of such necessaries, he thought, might be regarded as the cost of production of the labourer.[3] Wages can never rise for long above this starvation level. If they should ever rise above it, the growth of population and the force of competition in a capitalistic state will drive them down again. This is the iron law of wages, which is readily disproved either by statistics or by general reasoning.

Labour, Marx continues, creates the whole value of the product of industry. The business man does no work and adds nothing to value.[4] The labourer creates the whole value of the product, but receives only starvation wages. All the residue of the product is surplus value, which is stolen from the labourer by the capitalists, who own the means of production. Surplus value,

[1] Bertrand Russell, *German Social Democracy*, p. 8.

[2] *Capital* (English translation) I., pp. 5–6. As observed above, Ricardo, by reason of the ambiguities of his argument is at least as much to blame as Marx for this mistake, if mistake it be.

[3] *Ibid*, I., pp. 149–150.

[4] *Ibid*, I., pp. 202–3.

according to Marx, is the pivot of the capitalistic economy. Every increase in the labourer's efficiency, every improvement in the means of production, every new discovery of natural resources, every addition to capital by way of saving, only increases surplus value. It follows that economic progress, while leaving the condition of the labourer as miserable as ever, adds continually to the aggregate of surplus value, that is to say, to the aggregate income of the capitalist classes.

Marx does not discuss at any length the distribution, as distinct from the production, of surplus value. For he took little interest in the relation of individual capitalists to one another. He held, however, that, as time goes on, the middle classes will gradually disappear and society become more sharply divided into two classes only, the capitalists and the labourers, while capital will become concentrated in fewer and ever fewer hands.

This is one form of the law of the concentration of capital. In this form the weight of statistical evidence is strongly against it,[1] while Marx's *a priori* arguments in its favour are extremely feeble. The process, he considers, " is accomplished by the action of the immanent laws of capitalistic production itself."[2]

But the law of the concentration of capital is, in the writings of Marx, a slippery and ambiguous phrase. Often it means an ever-increasing scale of production, which must result in the eventual reduction of each branch of industry to a single large firm. Such a development, he points out, will make easy the transition to the completely socialistic state. But here again the facts are against him. It is impossible to establish any *general* tendency towards production on a continually increasing scale. In agriculture the tendency, on the

[1] This is pointed out at some length by Herr Bernstein in his *Evolutionary Socialism*.

[2] *Capital*, I., p. 788.

whole, seems to be the other way. In industry an increase in the scale of production is common, but by no means universal, and subject to obvious limits, and even where large units of production grow up, small units seldom disappear completely. A stronger case may be made out for a general tendency towards ever larger units of *management*, each comprising many separate units of *production*. But this is not what Marx had in mind. He seems always to have supposed that production on an ever larger scale was equivalent to a continually dwindling number of individual capitalists. He had no conception of the multiplicity of shareholders, rendered possible by the joint stock form of industrial organisation. Elsewhere he treats the law of the concentration of capital as equivalent to the assertion that "the rich are growing richer and the poor poorer," the ambiguity of which is considered in a later chapter.[1]

It has been said that Marx believed not only in the iron law of wages but also in the iron necessity of history. Nothing, he held, can hinder the predetermined march of events. Capitalism contains within itself the seeds of its own destruction. The rapid accumulation of surplus value, while the wages of labour remain at starvation level, will cause increasingly violent economic crises, due to general over-production and the inability of labourers to purchase their own surplus products.[2] The force of these crises will ultimately and inevitably dissolve the capitalist organisation of industry. "At last the integument is burst asunder, the knell of the capitalist private property sounds, the expropriators are expropriated."[3] How society is to be organised after this cataclysm is a complex question which Marx leaves obscure.

[1] See Part III., Chapter I., below.

[2] *Ibid*, I., p. 455.

[3] *Ibid*, I., p. 789.

It cannot be maintained that he made any large and valid contributions to economic theory. If no better arguments for Socialism could be found than those contained in his pages, it would indeed be a lost cause. The influence which he still exerts over many thoughtful minds is to be explained by the spirit of passionate sympathy for the oppressed, which breathes through all his writing, and by the dramatic quality of his generalisations. He still finds many readers, in spite of his exceedingly involved and heavy style, his immense prolixity, and his frequent use of mathematical symbols and formulæ. The popular influence of many able writers, who have successfully refuted his arguments, has been lessened by their appearance of comparative complacency towards the poverty and inequality, which co-exist with the modern industrial system.

§13. Of Rodbertus and Lassalle little need be said here.[1] Both owed much to Marx and both adopted the theory of the iron law of wages. Like Ricardo, both speak of a "fall in wages," when they mean a fall in the proportion of wages to the total value of the product of industry. Given this inaccurate use of language and granted the truth of the iron law, it was easy to show that wages fell in times of prosperity.

Rodbertus held that in about five centuries mankind would attain a state of world-wide Socialism. In the meanwhile he was opposed to agitation or violence. It is curious to remark that he was a Prussian landowner.

The chief interest of Lassalle's romantic life lies outside the sphere of economic theory. He was less an independent thinker than a great agitator, who was the chief instrument for spreading the theories of Marx and Rodbertus in the minds of the German working classes.

[1] Rodbertus' chief works are *Zur Erkenntnis unserer staatswissenschaftlichen Zustände* (1842) and *Zur Beleuchtung der sozialen Frage* (1875); Lassalle's, *Arbeiterprogram* (1862) and *Herr Bastiat-Schulze* (1864).

§14. We are now in a position to sum up the development of the theory of distribution between 1848 and 1871.

The theory of value, the key to many, though not to all, the problems of distribution, remained practically in the state in which Adam Smith and Ricardo had left it. In spite of Mill's complacency in regard to it, it was still in a very rudimentary condition. Consequently the theories of wages per head, interest per cent., and rent per acre were almost as incomplete in 1871 as in 1848. The problem of determining "the proportion of the whole produce of the earth which will be allotted" to the various factors of production—"the principal problem in Political Economy," according to Ricardo—had hardly yet been tackled in earnest, though Mill, Carey, Bastiat, and Marx had all nibbled at it.

Mill, however, had done much to clear up the causes of differences of earnings in different employments and had done still more useful work in emphasising the immense influence upon distribution between persons of the variable institution of private property. His discussion of property, and in particular of the laws of inheritance and bequest, might have been expected to lead to a great development of this side of the theory of distribution. But no such development had begun in 1871, nor even, as we shall presently see, in 1918.

Roscher was alive to the fact that a consideration of the relative incomes of persons is just as much a part of any full theory of distribution as a consideration of wages per head, interest per cent., and rent per acre, but his discussion of the inequality of individual incomes was rather trivial.

One further point should be noted. Neither Carey, Bastiat, nor Marx drew any sharp distinction between land and capital. They recognised only two factors of

production,[1] not three like Adam Smith, Ricardo, and Mill. The idea of three factors was characteristic of the English school, and of the economic conditions of England in their day. The idea of two tactors only was natural to Carey as an American,[2] to Bastiat as a follower of Carey, and to Marx as an opponent of all private property. It is also more appropriate to a broad theory of distribution. For the only genuine ground of distinction between land and capital is that, whereas the supply of land is limited by nature, the supply of capital is not, and this fact is often unimportant. But the distinction between labour and property is fundamental.

[1] Marx, of course, would not have agreed that capital was a " factor of production " at all. But the point is that he included land in the category of capital.

[2] For in America landowners never forned a class sharply separated both from other property owners and from workers, as in England. Compare J. B. Clark, *Essentials of Economic Theory*, p. 159.

CHAPTER VI

FIFTH PERIOD : 1871–1890.

§1. Jevons, in his *Theory of Political Economy*, stated certain first principles with a brilliant precision of which none of his predecessors had been capable. "In the last few months," he wrote to his brother in 1860, "I have fortunately struck out what I have no doubt is *the true Theory of Economy*, so thorough-going and consistent that I cannot now read other books on the subject without indignation."[1] A few weeks later he wrote that he hoped his forthcoming book would "re-establish the science on a sensible basis."[2] In 1871 the *Theory of Political Economy* was published. In 1882, at the age of forty-six, Jevons was drowned while bathing. His early death was a serious loss to economic science. He left behind him, indeed, in addition to his *Theory*, and various less important writings, two other books which will always rank as economic classics, namely, *The Coal Question* and *Investigations in Currency and Finance*. But he had scarcely begun the book which he regarded as the "work of his life," and which he intended to call *The Principles of Economics: a Treatise on the Industrial Mechanism of Society*. Of this project we have only a table of contents and a few chapters and fragments of chapters. The chapters on distribution are among those that were planned but never written. An edition

[1] *Letters and Journals of W. S. Jevons*, p. 151.
[2] *Ibid*, p. 154.

of these fragmentary *Principles* was published in 1905 by Mr. Higgs.[1]

Jevons nowhere discusses the relation of property laws to distribution, though he might have done so, had he lived to finish his *Principles*. On this point, however, his work, as it stands, is inferior to that of Mill.

§2. His *Theory*, he thought, would "hardly meet with ready acceptance among those who regard the science of Political Economy as having already acquired an almost perfect form."[2] "I have sketched out," he continues, "almost irrespective of previous opinions, the form which the science, as it seems to me, must ultimately take."[3] "The conclusion to which I am ever more clearly coming is that the only hope of attaining a true system of economics is to fling aside, once and forever, the mazy and preposterous assumptions of the Ricardian school. Our English economists have been living in a fool's paradise."[4] "The so-called wage fund theory" he regarded "as purely delusive," the "natural rate of wages" as an absurdity, the cost of production theory of value and the proposition that rent forms no part of the cost of production as simply false. Rent, interest, and wages, he held, were determined by the same laws and stood in the same relation to value.

[1] Mr. Higgs gives the following happy characterisation of Jevons: "Among the economists of all time Jevons unquestionably stands in the first rank. Alert, original, exact, profound, he brought to the study of economic theory a mind trained in the processes of logic and of mathematical analysis, while his powers of observation and co-ordination were quickened by a large acquaintance with the principles and the details of natural science. Exceptionally familiar with the work of the early English and French economists, a pioneer in pure theory, an authoritative writer upon such practical matters as Money and Banking, Currency and Finance, the State in Relation to Labour, Methods of Social Reform, the Coal Question, etc., he was one of the few professed economists who have in this country secured respect alike in Parliament, in the City, and in the closet."

[2] *Theory*, Preface, p. v.

[3] *Ibid*, p. vii.

[4] *Ibid*, p. xlix.

"When at length a true system of economics comes to be established, it will be seen that that able but wrong-headed man, David Ricardo, shunted the car of economic science on to a wrong line, a line, however, on which it was further urged towards confusion by his equally able and wrong-headed admirer, John Stuart Mill. It will be a work of labour to pick up the fragments of a shattered science and to start anew."[1]

In working out the "mechanics of self-interest and utility," Jevons makes fundamental "the great principle of the ultimate decrease of the final degree of utility of any commodity."[2] This principle, of course, is that which later economists have called the law of diminishing marginal utility.[3] Thus an intelligent person lays out his income in such a way as to make the marginal utilities of all commodities as nearly equal as possible and, therefore, "so far as is consistent with the inequality of wealth in every community, all commodities are distributed by exchange so as to produce the maximum of utility."[4] Similarly, every commodity tends to be distributed between different uses, and to be distributed in time, in such a way as to equalise its marginal utilities in different uses and at different points of time.[5]

As regards the theory of value, "repeated reflection and inquiry have led me to the somewhat novel opinion that value depends entirely upon utility."[6] This statement is nearer to the truth than Ricardo's, that value depends entirely upon cost of production, but it is still one-sided and incomplete. The correct view, of course,

[1] *Ibid*, p. lvii. [2] *Ibid*, Chapters II. and III.

[3] Jevons observes on p. 43 that Senior's "law of variety" is equivalent to the law of diminishing marginal utility. It may indeed be said that the meaning of the latter law is merely that men desire variety in their consumption. A still earlier reference to desire for variety as a determinant of value will be found in Adam Smith, (*Lectures on Justice, Police, and Arms*, pp. 159–160).

[4] *Ibid*, p. 153.

[5] *Ibid*, pp. 63 and 77. [6] *Ibid*, p. 1

developed by later writers, is that, in general, utility and cost of production jointly determine value. Utility, however, is always a determinant of value, while in certain cases cost of production is not. Thus the value of labour is not determined by its cost of production, nor is the value of land or other natural resources, nor that of irreplaceable or unique articles, such as works of art, nor, except indirectly,[1] that of goods sold under conditions of monopoly.

Jevons, therefore, is nearer to the truth than Ricardo, but still some distance away. Moreover, as Marshall points out,[2] he unconsciously admits that cost of production does help to determine value. For he argues[3] that cost of production determines supply, that supply determines marginal utility, and that marginal utility determines value. And this is equivalent to saying that cost of production determines value.

Jevons held that " the whole subject of the distribution of wealth is nothing but a result of the theory of value. Wages, profit, interest, rent, are but the prices at which the owners of diverse kinds of property are able to sell them."[4] Distribution is effected by exchange, utility, and the law of indifference. From " the law of indifference," which " is to the effect that like may serve for like " and " is but another name for the principle of competition which underlies the whole mechanism of society," it follows that " a similar commodity cannot be exchanged at the same place and time at two different ratios of exchange."[5]

From this law also, Jevons considers, Ricardo's theory of rent may be derived without difficulty and he accepts it as substantially correct.[6] He is likewise " in funda-

[1] Indirectly, in the sense that an absolute monopolist can raise price as high above cost of production as he chooses, whereas, under competition, price is continually tending to equal cost of production.

[2] *Principles*, pp. 817–8.

[3] *Theory*, p. 179.

[4] *Principles*, p. 50.

[5] *Principles*, pp. 59–60.

[6] *Theory*, Chapter VI.

mental agreement with Ricardo "[1] as regards the rate of interest, but rejects both Ricardo's theory of the natural rate of wages and Mill's theory of the wages fund. "The wages of a working man are ultimately coincident with what he produces after the deduction of rent, taxes, and the interest of capital,"[2] and the competition of employers may raise wages indefinitely.

The great achievement of the *Theory* is the development of the law of diminishing marginal utility. From this law a practical conclusion of the greatest importance follows, namely, the extreme wastefulness from the point of view of economic welfare of large inequalities of income.[3] It is obvious to the modern economist that, from this point of view, a considerable equalisation of incomes is desirable, provided that production is not checked thereby. But before Jevons wrote, this was by no means obvious, or at any rate it was not widely perceived.[4]

Jevons admits that he was not the first to discover the law of diminishing marginal utility,[5] but he claims to have discovered it independently of others, and no other stated it more clearly than he. Gossen's *Entwickelung der Gesetze des Menschlichen Verkehrs*, published in 1854, contains it, but this book remained unnoticed till Jevons drew attention to it in the preface to his *Theory*.[6] Fur-

[1] *Ibid*, pp. 241–2.

[2] *Ibid*, p. 292. Elsewhere (pp. 199–200) Jevons gives a mathematical formula for "the amount of the reward of labour" in the form of $\frac{dx}{dt} \cdot \frac{du}{dx}$, where x is the product, u its utility, and t the time spent in labour. This is equivalent to the formula of later economists that wages are measured by the marginal net product of labour.

[3] This matter has already been referred to in Part I., Chapter II. above.

[4] Compare Cannan, *Economic Outlook*, p. 60.

[5] *Theory*, pp. xxxv–xli.

[6] A full statement of Gossen's chief propositions is contained in Pantaleoni, *Pure Economics*, pp. 28 ff.

Professor Pantaleoni observes (*Ibid*, p. 28) that "in psychology"

ther, by a remarkable coincidence, Menger in his *Grundsätze der Volkswirtschaftslehre*, published in 1871, and Walras, in his *Eléments de l'Economie Pure*, published in 1874, also arrived independently at similar conclusions.

§3. The work during this period of the Austrian school, led by Menger, Wieser, and Böhm-Bawerk, occupies an important place in the historical development of the theories of value and of interest, but has no very direct bearing on distribution between persons, and will not, therefore, be considered here.

§4. In Germany, the Historical School continued dominant. Their leader, Schmoller, may most conveniently be regarded as falling within this period, though his *Grundriss*, in which the leading ideas of many earlier writings are brought together, did not appear till 1901. He did little for general theory; that he did not consider to be his business. But, from one who attached such importance to a study of institutions from a juristic and comparative standpoint, one would expect some valuable thoughts on the influence of property laws on distribution. Yet we find little beyond a quantity of statistics and a few vague and unhelpful generalisations.

Out of the three large volumes of the *Grundriss*, five pages are given to the institution of inheritance. The inheritance of property, we are told, originated in the constitution of the family or clan, and the rights of very distant relatives to inherit are a regrettable survival of the ancient clan organisation. Schmoller believes that the superior, that is to say the richer, social classes possess superior personal qualities, which are transmitted along with their wealth from generation to generation. He approves, therefore, of the prevailing laws of inheritance, for these give the freest play to the superior

the law of diminishing marginal utility "has been known since the time of Aristotle," and he discusses the history of its gradual emergence in economic theory in footnotes to pages 28 and 78.

qualities of the upper classes. Such laws are a *means* of maintaining an unequal distribution of property, and even of increasing it when one child gets more than the rest, but they must not, he insists, be regarded as a *cause* of this unequal distribution, for the superior qualities chiefly found in members of the upper classes would enable the latter to acquire great wealth in any case.

It is likely, Schmoller admits, that from time to time stray members of the upper classes will become degenerate. These unfortunates will have few children, or even none at all, and are certain to dissipate their fortunes. In the course of a generation or two they will sink back into the ranks of the lower classes, and others will rise to take their place. There is thus "a process of natural purification" always at work in society, but this process does not satisfy "the brutal impatience of democracy." Chance, he sententiously observes, which in the form of health or illness, life or death, affects the destiny of all of us, is a grievance to the democracy only when it takes the form of inherited wealth or poverty. This is deplorable, for statistics show that for the majority of families inherited wealth is a great benefit. Rich men should, however, be encouraged by public opinion to leave some of their property for public purposes. Such are Schmoller's weighty opinions on this subject.

§5. In France, Leroy-Beaulieu's *Essai sur la répartition des richesses et sur la tendance à une moindre inégalité des conditions* was published in 1880. As its title suggests, its thesis is that the inequality of incomes is diminishing in modern states. The argument is specially directed against those Socialists who assert the contrary.

In spite of its obvious defects, this book is an interesting landmark in the development of economic thought. On the one hand, it recognises, as most of the older writers did not, that an enquiry into the causes, and degree, of inequality in individual incomes is one of the most

important tasks confronting the economist. But on the other hand, it does not recognise that discussions, such as the older writers conducted, on the subject of wages per head, interest per cent., and rent per acre, have very little bearing on such an enquiry.

Leroy-Beaulieu's argument, which is supported by a great array of somewhat unconvincing statistics, may be summarised as follows. Under the influence of free competition and natural laws, inequality and poverty are both diminishing[1] and "the real danger of civilised societies in the future is, not that there will be too great an inequality of conditions, but that there will be too little, and that, in a few decades, a dreary uniformity of incomes and ways of life will produce apathy and stagnation."[2]

Owing to the progressive development of new countries and the progressive cheapening of transport by land and sea, the prices of foodstuffs, and hence agricultural rents in Europe, are likely to go on falling for several centuries.[3] The rise of urban rents, on the other hand, will be checked by the cheapening of transit and by the fact that large towns will grow less rapidly in the future than in the past.[4]

The rate of interest is likely to fall continuously, since the increase of saving and the increasing security of investments may be expected to outweigh the effects of the migration of capital from old to new countries, and the effects of new inventions, upon the demand for new capital.[5]

This fall in the rate of interest makes it more difficult to build up new fortunes, while fortunes already made are gradually divided on the death of their possessors, or dissipated by imprudence, thriftlessness or ill-luck in

[1] *Essai*, pp. xv–xvi.
[2] *Ibid*, p. iii.
[3] *Ibid*, pp. 78 ff.
[4] *Ibid*, pp. 226 ff.
[5] *Ibid*, pp. 246 ff.

investments.[1] In Leroy-Beaulieu's opinion, the chances are strongly against the survival of a great fortune for more than a generation or two at the most.

The possibilities of speculation, the source of the majority of big fortunes, will become less in future, as general intelligence grows.[2] Both among business men and in the liberal professions increasing competition, due to an improved system of education, is reducing the number of large and increasing the number of moderate incomes.[3]

The rate of wages, being dependent on the productivity of labour, tends to rise continually, owing to inventions and to the fact that capital increases faster than population.[4]

All things, in short, seem to Leroy-Beaulieu to be working together for good, for, on the whole, he would welcome a greater equality of conditions. But his prophecies have not very successfully withstood the wear and tear of forty years.

"Many of our readers," he says in conclusion, "will be surprised that in a book on the distribution of wealth we have not spoken at length of the influence of our laws of succession. It is because it was sufficient to discuss the great general economic causes, which are infinitely more powerful than any human laws. Compared with the economic laws which regulate the rate of interest, the rent of land, or the wages of labour, our laws of succession have only a secondary influence."[5]

This book may be regarded as a conscious attempt to solve a most important problem, but an attempt along wrong lines.

§6. In America two names stand out during this period, Walker and Henry George. Walker is the first American

[1] *Ibid*, pp. 261–2. [2] *Ibid*, p. 263.
[3] *Ibid*, pp. 300–1 and 352.
[4] *Ibid*, pp. 386 ff. [5] *Ibid*, p. 587.

economist of real distinction. His *Wages Question* appeared in 1876 and his *Political Economy* in 1883. Though some of the most original parts of his theory are unsound, his ideas and sympathies are strikingly modern. He was the first to appreciate the fundamental character of the distinction between the business man or "entrepreneur," and the mere capitalist, who takes no effective part in the management of business.[1] The income of the former he calls profits, of the latter interest.

He regards the doctrine of the wages fund as "a current theory which squarely blocks the way to a philosophy of wages."[2] His own view is that "the labourer is the residual claimant to the product of industry;"[3] he takes what is left, after rent, profits, and interest have been paid. Walker even argues, not only that rent does not enter into the cost of production, but that profits also "form no part of the price of the products of industry, nor do they diminish wages."[4]

His discussion of the relation of wages to efficiency is excellent, though he somewhat exaggerates the evil effects of a fall in wages. A fall in wages may indeed often diminish efficiency, but it is going too far to say that "even the occurrence of better times and new opportunities would not serve to restore the shattered industrial manhood. There is no tendency in any economical force to repair such mischief."[5]

He rightly condemns superficial theories of economic harmonies, and observes that those who held them "have scarcely recognised a problem of distribution," owing to their belief in "the absolute sufficiency of economical forces, in a state of industrial freedom, to diffuse all burdens and all benefits alike, to the highest

[1] The formal distinction had been made by many earlier writers. but its full importance had not been perceived.

[2] *Wages Question*, p. 11.

[3] *Political Economy*, p. 250

[4] *Ibid*, p. 236.

[5] *Wages Question*, p. 165.

advantage of the industrial community . . . To such it can only be a matter of curious interest what are the facts of the distribution of wealth at any given time."[1] But once more it is going too far to say that the tendency of competition is always "to widen the differences existing in industrial society."[2] His practical deduction, however, is sound, that "the economist should study critically the condition of the several classes, with a view to ascertain what help can be brought from the outside, in the absence of any reparative virtue in industrial causes, to supply the deficiencies of competition."[3]

Really perfect competition, which should include perfect mobility of individuals between different social classes and employments, would, he thinks, be highly desirable, but he points out that this is not the kind of competition which we actually experience. A high degree of mobility presupposes a very high level of education and intelligence, both in parents and children, which is pitifully lacking in the real world. As a result, there is only a very weak and uncertain tendency towards equality of earnings in different employments, even when we consider those employments which are equally accessible to the children of the poor. "There is something ludicrous in the picture of protracted and frequently adjourned family councils, in which poor Hodge, his wife, and eldest daughter discuss the industrial capacities of the younger members of the family, and the comparative inducements of the several hundred manual occupations recognised in the tables of the census." In truth the problem that presents itself to Hodge is to get his children into work "somehow and somewhere."[4]

Walker's chief service to economic thought was his effective criticism of some of the most superficial and

[1] *Ibid*, p. 155–6
[2] *Ibid*, p. 166. [3] *Ibid*, p. 172. [4] *Ibid*, p. 201.

practically harmful doctrines of his day. His criticism was so vigorous and whole-hearted, as sometimes to lead him into errors in the opposite direction. But these errors were not practically harmful and are easily corrected in the light of later and better balanced theories. He lived close to the facts of life, and was ever on his guard against excessive abstraction and the over-intellectualising of the motives of simple people.

§7. Henry George was a writer of a very different type. His *Progress and Poverty*, published in 1879, is the result of Ricardo's theory of rent operating upon a highly imaginative mind, familiar only with the peculiar and transitory conditions of Western America in the seventies. The book has had a vogue out of all proportion to its merits. Many far abler economists, who have been far less widely read, must envy George his fervent and persuasive style.

He held that, in spite of every increase in productive power, wages always "tend to a minimum which will give but a bare living,"[1] and that "the cause which, as population increases and the productive arts advance, deepens the poverty of the lowest class,"[2] is private property in land. He accepts Ricardo's law of rent to the effect that "rent is determined by the margin of cultivation, all lands yielding as rent that part of their produce which exceeds what an equal application of labour and capital could produce from the poorest land in use."[3]

"Wages and interest," therefore, "do not depend upon the produce of labour and capital, but upon what is left after rent is taken out, or upon the produce which they could obtain without paying rent—that is from the poorest land in use. And hence, no matter what be the increase in productive power, if the increase in rent

[1] *Progress and Poverty*, p. 10. [2] *Ibid*, p. 108.
[3] *Ibid*, p. 113.

keeps pace with it, neither wages nor interest can increase."[1] In the course of material progress poorer and poorer lands are taken into use and begin to yield rent. Therefore, since "wages depend upon the margin of cultivation," when this margin "sinks to points of lower and lower productiveness, so must wages sink."[2] Further, "as rent rises, interest will fall as wages fall, and will be determined by the margin of cultivation."[3]

Thus, "all the advantages gained by the march of progress go to the owners of land."[4] The true and only remedy for this state of things is to "make land common property,"[5] by placing all taxation upon land values. Private ownership of land is unjust, though other forms of property are just,[6] and landowners are, therefore, entitled to no compensation.[7]

This long series of *non-sequiturs* provides an excellent critical exercise for logicians. The key to most of George's fallacies is his habitual confusion of percentages with absolute amounts. Having proved, or made it to appear plausible, that aggregate rent rises with material progress—a proposition which is generally true—he seems to imagine that he has proved that aggregate rent rises relatively to the sum of aggregate wages and interest—a proposition which is frequently, if not generally, false.

This latter proposition, that the sum of aggregate wages and interest diminishes, *relatively to aggregate rent*, he then treats as equivalent to the proposition that the sum of aggregate wages and interest diminishes in absolute amount. This last proposition, again, he treats as equivalent to the proposition that aggregate wages and aggregate interest *each* diminish in absolute amount.

As might be expected, he falls into the further confusion between aggregate wages and interest on the one

[1] *Ibid*, p. 121.
[2] *Ibid*, p. 147. [3] *Ibid*, p. 144. [4] *Ibid*, p. 200.
[5] *Ibid*, p. 233. [6] *Ibid*, p. 239. [7] *Ibid*, p. 258.

hand, and the general rates of wages and interest (wages per head and interest per cent.) on the other. But this, in his case, is a comparatively minor error. Though he nowhere quotes any relevant statistics, he has a chapter headed " The Statistics of the Problem thus explained," in the course of which he remarks " it is unnecessary to allude to facts. They will suggest themselves to the reader."[1]

The moral of this sad book is that the great Ricardo, by the form in which he framed his theories, exposed weaker minds to needless temptations. The case of George reinforces that of Marx. It is an added irony that the sharpness of Ricardo's distinction between land and capital was even less appropriate to the facts of Western America, when George wrote, than to the facts of England, when Ricardo himself wrote.

§8. The only other important English economist of this period is Sidgwick, who published his *Principles of Political Economy* in 1883. This book displays great subtlety and critical power, covers a wide field and combines harmoniously the best work of Mill and Jevons. " Its special aim is to eliminate needless polemics by a guarded re-statement of traditional doctrines, with due recognition of the advances made in economic theory by recent writers."[2] In the pursuit of this aim Sidgwick meets with a very large measure of success. His theory of value, for instance, though laying a rather exaggerated stress upon cost of production, takes reasonable account of the influence of utility.[3]

More definitely than any previous writer, he links together distribution and exchange. In developing his theory of distribution[4] he explains that " we suppose a society in which the main part of the land and other instruments for producing wealth are already distributed

[1] *Ibid*, p. 159.
[2] *Principles*, p. ix.
[3] *Ibid*, pp. 179 ff.
[4] Book II. of his *Principles*.

among the members as their private property, and this pre-existing distribution of producers' wealth we do not propose to explain. In working out the details of our theory, we shall have to take note of the inequality in all existing civilised societies, and it is convenient to assume this inequality throughout."[1] "The distribution, in fact, that we have to investigate is essentially Distribution through Exchange. It is from this intimate connection of the two notions that I am unable to follow Mill in separating the theory of distribution from the theory of the exchange value of material commodities."[2]

Thus Sidgwick defines distribution even more narrowly than many of his predecessors. This is not because his outlook was narrower than theirs, but because his mind was clearer. He believed that he was merely following usage; he was, in fact, bringing out its narrowness. Questions of definition often turn less on principle than on verbal convenience, and it is quite possible to define "the theory of distribution" thus narrowly, and yet to give due prominence elsewhere to other questions of distribution between persons. This Sidgwick did, but this most economists who adopt his narrow definition fail to do. The balance of verbal convenience, however, seems strongly against the narrow definition. Sidgwick's theory of distribution, as he himself admits, is really part of his theory of value. It is only the old, familiar theory, in an improved form, of wages per head, interest per cent., and rent per acre. This theory is most conveniently regarded as three special applications of the general theory of value, and as preliminary to the complete theory of distribution. And the complete theory should include all general reasoning which explains the distribution of income between persons. It should include, in particular, many of the enquiries undertaken

[1] *Ibid*, p. 171. [2] *Ibid*, p. 176.

by Sidgwick in Book III. of his *Principles*, under the title of "the Art of Political Economy."

On another point, Sidgwick follows usage less intelligently. "Under the head of 'distribution and exchange,'" he says, "we examine the different proportions in which the produce of industry is shared among the different economic classes that have co-operated in producing it, the ratios in which different kinds of wealth are exchanged for each other, and the causes determining these proportions and ratios."[1] We have here either a definite repetition of the unfulfilled pledge of Say and Ricardo to expound the variation of aggregate wages, interest, and rent relatively to one another, or else a careless use of words very unusual in Sidgwick. But the fact remains that Sidgwick, like Say and Ricardo, nowhere attempts a discussion on these lines.

He criticises the conception of three co-ordinate factors of production, thinking it "rather surprising that English economists generally agree in making an unqualified distinction between land and capital."[2] He applies the marginal idea to the determination of interest, holding that the rate of interest is measured by the marginal net product of capital, that is to say, by the addition made to the total product by the last increment of capital.[3] Following Jevons, he recognises, though not very explicitly, the marginal net product of labour as the chief determinant of wages.[4] Following Walker, he emphasises the influence of an increase of wages on efficiency, and points out that competition does not tend to give the labourer the wages that will make him most efficient. Under favourable conditions, Trade Unions may raise wages without harm to the interests either of their own members, or of labour in the aggregate.[5]

[1] *Ibid*, p. 12. [2] *Ibid*, p. 129. [3] *Ibid*, p. 276.
[4] *Ibid*, pp. 309 ff. [5] *Ibid*, pp. 349 ff.

It is possible, according to Sidgwick, though it is unlikely and probably has never actually happened, that inventions may permanently lower aggregate wages, but in fact practically all inventions benefit in varying degrees both labour and capital.[1] He observes that inventions may be capital-saving, no less than labour-saving. On the causes of differences of earnings in different occupations he is sound but unoriginal.[2]

Book III, on "The Art of Political Economy," is, perhaps, the finest piece of work of its kind in the whole of economic literature. It shows at its best Sidgwick's power of subtle and dispassionate analysis. The delicately balanced argument is hard to condense, but may be roughly summarised as follows.

The proposition that the individualist "system of natural liberty" tends to maximise production is only true, subject to very important qualifications.[3] Government should interfere in economic matters on various grounds and, in particular, many important questions as to the limits and nature of property rights have necessarily to be determined by Government. Examples are land tenure, patents, copyright, and the inheritance of wealth. Such questions lie "on a kind of debateable border-ground where the Art of Political Economy merges in the wider Art of Politics."[4]

Accordingly we find the question of Inheritance treated at greater length in Sidgwick's *Elements of Politics* (Chapter VII). "Theoretically," he considers, "freedom of bequest is a doubtful point in the individualist scheme. Actually, it is restricted in some modern states by old limitations in the interest of the family, and recently sweeping limitations have been proposed in the interest of the community." Limitations in the interest of children, he thinks, are only justifiable in

[1] *Ibid*, p. 313.
[2] *Ibid*, pp. 323.
[3] *Ibid*, pp. 399.
[4] *Ibid*, p. 436.

order to secure their training and support until they can provide for themselves. The drastic restrictions proposed by Bentham and Mill seem dangerous to industry and saving, and are liable to evasion by gifts *inter vivos.* "Probably all that can be safely attempted in the way of limiting bequests in the interest of the community, beyond the regulations already recognised in English law, is a tax on inheritance, considerably increased when bequests are received by others than near relatives." As regards intestate succession, Sidgwick favours the exclusion of remote collaterals and an equal division among children of all property, both real and personal.

We may now resume our summary of Book III of the *Principles.* Sidgwick holds that the present economic system has no tendency to give the labourer the wages he deserves. Many have held, he points out, that "unrestricted freedom of action and contract" would tend to reduce the inequality of incomes "to the lowest attainable minimum, so soon at any rate as enlightenment should be sufficiently diffused by means of elementary education and the spread of cheap means of obtaining information." But "they have admitted that very great inequalities of income, due to inheritance, would probably continue to exist."[1]

But the present system, he continues, leaves room for great inequalities due to further causes, namely, monopoly and combination, the fluctuations of industry, the unearned increment of land value, and the payment of large sums in interest to a comparatively small number of persons. In a Socialist State saving would still be necessary, but interest would not have to be paid to individuals. The objection to removing such causes of inequality "is productional, not distributional."[2] "The objection to Socialism is not that it would divide the

[1] *Ibid*, pp. 505–6. [2] *Ibid*, pp. 505 ff.

produce of industry badly, but that it would have so much less to divide."

Prima facie, a more equal distribution would increase happiness. It would, in short, be more economic. But it might indirectly diminish happiness by causing a decrease in saving, a decrease in the efficiency of capital, through its greater diffusion in small amounts, an excessive increase in population and a check to the growth of culture.[1] A judicious and gradual advance in a Socialistic direction is not, however, opposed to sound economic theory.[2]

Many policies, by which Government seeks to equalise distribution, are rightly intended also to increase production, so that the whole community may be benefited and not one part only at the expense of the rest. Examples of such policies are public expenditure on education, State-aided land purchase, and cheap, or even free, medical attendance for the poorer classes. The limits of governmental interference of this kind should be partly determined by the efficiency of individual effort and existing private enterprise.[3]

It is comparatively unimportant, though unfortunate, that Sidgwick should have considered the whole argument of his Book III to be outside his formal theory of distribution. On the other hand, it is important that he should have considered it to be within the scope of the "Principles of Political Economy."

His work has received much less attention than it deserves. He has been overshadowed by Marshall, who, writing only seven years later, rather curiously makes no reference to Sidgwick's *Principles*. A little more of Sidgwick's spirit would have done no harm to some of Marshall's followers, but his influence is clearly traceable in the work of Professor Pigou and, to a less degree, in

[1] *Ibid*, pp. 519 ff. [2] *Ibid*, pp. 527 ff. [3] *Ibid*, pp. 537 ff.

that of Professor Cannan. His excellence as an economist is the more remarkable, when we remember the range and versatility of his intellectual activity and published writings.[1]

[1] Morley (*Recollections*, I., p. 124) writes aptly "if any Englishman ever belonged to the household of Socrates, Sidgwick was he. . . As a writer, his method made him difficult, and his contribution as a whole is not easy to grasp, even by people as painstaking as himself. Yet in nobody did rationalism clothe itself in more ingenious, subtle, or effective forms . . . He left a world of affectionate admirers, but he founded no school; and if he had, nobody would have been so competent as himself to reduce the pretensions of its scholars to a nullity."

CHAPTER VII

Sixth Period : 1890–1911.

§1. From this point onwards we shall be chiefly concerned with living men, whose work is still incomplete, and of whom, therefore, our judgment must be in some degree provisional.

The condition of economic science in 1890, when Marshall published his *Principles*, was considerably more advanced than it had been in 1871. Jevons, Walker, and the Austrian school had made important contributions to economic truth, and Sidgwick had done much to fuse the new truths with the old. Corresponding to these two lines of advance, two elements may be roughly distinguished in Marshall's *Principles*, first, work of an original and constructive kind, and second, the work of interpreting and endeavouring to reconcile with truth the doctrines of certain of his predecessors. The second element is less important than the first. For it is doubtful whether any good purpose is served by " the creation of a mythical Ricardo and Malthus, who never wrote anything which cannot be ' limited and explained ' till it ceases to be in conflict either with recognised fact or accepted modern opinion."[1]

The *Principles* was intended to be only the first of a series of volumes, which together should cover the whole field of economics, theoretical and applied.[2] The book is concerned mainly with foundations, and is intended to

[1] Cannan, *Theories of Production and Distribution*, p. viii.

[2] Twenty-nine years elapsed before the publication in 1919 of *Industry and Trade*, the second volume in this series.

prepare the way for more realistic studies. This explains why the theory of value occupies so large, at first sight so disproportionately large, a place. In Jevons' *Theory* there is an apparent disproportion of the same kind, which disappears only when Jevons' economic writings are viewed as a whole. It is the joint achievement of Marshall and Jevons to have elaborated the theory of value, which lies at the core of modern economic science. But it seems just to say that modern economists as a body have spent too much time on unsubstantial refinements of this branch of theory and too little on other branches.

§2. The greater part of Marshall's most original and characteristic thought is contained in Books IV and V of the *Principles*, which deal respectively with the agents of production and with value. With these Books we are not here directly concerned. Book VI on distribution contains less which is original. In the theory of value Marshall clears up many confusions by emphasising the idea of mutual causation. Demand, supply, and price determine one another, just as three balls lying in a bowl mutually determine one another's position.[1] Marginal uses on the one hand, marginal costs on the other, "indicate but do not govern value; they are governed, together with value, by the general relations of demand and supply." "The uses of each agent of production are governed by the general conditions of demand in relation to supply," but "we must watch the marginal uses and the marginal efficiency of each agent, simply because it is only at the margin that any of those shiftings can occur by which changed relations of supply and demand manifest themselves."[2] Marginal efficiency is measured by marginal net product, but "the doctrine that the earnings of a worker tend to be equal to the net

[1] *Principles*, p. 818. [2] *Ibid*, p. 522.

product of his work, is not a theory of wages, since, in order to estimate net product, we have to take for granted all the expenses of production of the commodity on which he works. But the doctrine is a useful part of a theory of wages."[1]

Both in Adam Smith's and in Marshall's theory of value, wages per head, profits (or interest) per cent. and rent per acre occupy central positions. But, whereas Adam Smith regards these three quantities as component parts of price, Marshall regards them as the marginal net products of the three chief factors of production. For a supply of labour is most conveniently, if not most scientifically, measured in workers, of capital in hundred pounds' worth, and of land in acres. The doctrine of payment according to marginal efficiency is fatal to the various "residual theories" of distribution, which have been put forward from time to time as regards particular factors of production.

Like Sidgwick, Marshall regarded "the problems of distribution and exchange as so closely connected that it is doubtful whether anything is to be gained by the attempt to keep them separate."[2] But he introduces an important verbal change into his discussion of distribution. "The term 'interest,'" he says, "is properly applicable only to 'free' or 'floating' capital the income from investments is of the nature of a rent."[3] All income, therefore, which is derived from an instrument of production made by man, as distinguished from land and other natural resources, Marshall calls "quasi-rent."[4]

[1] *Ibid*, pp. 518–9.

[2] *Ibid*, p. 83. In 1879 Marshall published a little book, now withdrawn from circulation, on the *Economics of Industry*. In this book, not to be confused with a later book bearing the same title, which is merely a summary of the *Principles*, he logically follows out the opinion quoted in the text, and includes all discussion of distribution under the general title of "Normal Value."

[3] *Ibid*, p. xi.

The use of the term quasi-rent is doubly important. In the first place it emphasises the fact that land and capital may be classed together except in problems dealing with "long periods," or ultimate effects, problems, that is to say, in which it is a relevant fact that, whereas the supply of capital may be increased or diminished, the supply of land is fixed. In the second place, it suggests an alternative method of measuring capital The quasi-rent of a given instrument of capital is analogous to the wages of a given worker; but the interest obtained from a hundred pounds' worth of capital is not.

§3. Book VI of the *Principles* contains an important discussion on "the relations of capital in general to wages in general," the conclusion of which is as follows.

"Though capital in general is constantly competing with labour for the field of employment in particular trades, yet since capital itself is the embodiment of labour as well as of waiting, the competition is really between some kinds of labour aided by a good deal of waiting and other kinds of labour aided by less waiting. There is a real and effective competition between labour in general and waiting in general. But it covers a small part of the whole field, and is of small importance relatively to the benefits which labour derives from obtaining cheaply the aid of capital, and therefore of efficient methods in the production of things that it needs."[1] It follows that an increase in the supply of capital increases aggregate wages. Marshall has a few remarks, some of which are suggestive, on the causes which determine the relative shares of the various factors of production.[2] But these remarks are too scattered and disconnected to be treated as a coherent theory.

As regards the inequality of incomes, "the question whether poverty is necessary gives its highest interest

[1] *Ibid*, pp. 540–1.
[2] See, *e.g.*, *Ibid*. pp. 537, 666, 670, and 834 ff.

to economics."[1] Marshall thinks that "it is doubtful whether the aggregate of the riches of the very rich are as large a part of the total national wealth even in the United States or in England now as they have been in some earlier phases of civilisation." Moreover, "statistics indicate that middle class incomes are increasing faster than those of the rich, that the earnings of artisans are increasing faster than those of the professional classes, and that the wages of healthy and vigorous unskilled labourers are increasing faster even than those of the average artisan."[2]

He concludes that "the social and economic forces already at work are changing the distribution of wealth for the better, that they are persistent and increasing in strength, and that their influence is for the greater part cumulative," but that "large and ill-considered changes might result in grave disaster."[3] But "the inequalities of wealth, though less than they are often represented to be, are a serious flaw in our economic organisation, and any diminution of them which can be attained by means that would not sap the springs of free initiative and strength of character, and would not therefore materially check the growth of the national dividend, would seem to be a clear social gain."[4]

Marshall favours the legal enforcement of a minimum standard of housing and, as far as children are concerned, of food, cleanliness, and healthy surroundings,[5] and further, of a minimum standard of education very much higher than that now existing. "There is no extravagance," he observes in an earlier passage, "more prejudicial to the growth of the national wealth, than that wasteful negligence which allows genius that happens to be born of lowly parentage to expend itself in lowly

[1] *Ibid*, Book I., Chapter I. [2] *Ibid*, p. 687. [3] *Ibid*, p. 712.
[4] *Ibid*. p. 714. [5] *Ibid*. pp. 714–7.

work . . . The economic value of one great individual genius is sufficient to cover the expenses of the education of a whole town."[1] But of the effects of better education upon distribution, as distinct from production, he says little.[2]

§4. For some time after the publication of Marshall's *Principles* the theory of distribution ran in a rut. Distribution was still defined in the old, narrow way, and the traditional discussions proceeded, through treatise after treatise, on familiar lines. The conception of the margin was now firmly established, and marginal theories were refined and restated by many writers. But the theory of distribution remained a mere offshoot of the theory of value.

Nor have all Marshall's followers attained his breadth of view. Sir Sydney Chapman, for instance, explains that " the economics of distribution is concerned, primarily, not with *incomes*, but with the *earnings* of the several factors of production. The economics of distribution is not concerned, primarily, to show how, by laws of inheritance or otherwise, it is made easier or more difficult to be born wealthy. It is concerned primarily to show why a man's income from his accumulated wealth, whatever its form, is what it is."[3]

This is merely the traditional definition, the only use of which is to pave the way to the traditional theory. But from meditating overmuch upon this very narrow theory, Sir Sydney Chapman is led elsewhere into an absurd position, as the following passage will show.

" Can such enormous differences as subsist between the incomes of equally deserving persons be right, it may naturally be asked. And if the question be couched in the form ' Can the social arrangements which really

[1] *Ibid*, pp. 213–7.
[2] See, however, pp. 681–3 and 717.
[3] *Outlines of Political Economy* (1911), p. 263

render such differences unavoidable be right?' the answer must be an unhesitating negative. The chief line of reform that morals entail upon us is to spread more evenly education and other opportunities throughout the community. If this be done, unreasonable inequalities in income will right themselves. As more rise to the better paid work, the price paid for it will fall relatively, though the aggregate income of the community will undoubtedly rise."[1]

From this passage it would appear that great inequalities in income from work are "unreasonable," whereas still greater inequalities in income from property are not. A broader view of distribution, which should include those "laws of inheritance" so summarily set aside, would have saved Sir Sydney Chapman from this strange opinion.

§5. Some of the best work on distribution during this period was done by economists who specialised in particular branches of the traditional theory. The causes determining the rate of interest (interest per cent.) were clearly expounded by Professor Cassel,[2] and by Professor Irving Fisher.[3] The causes determining wages (wages per head) were carefully discussed by Professor Taussig.[4] It is interesting to notice that these three writers, who specialised in small parts of the larger theory, took a far less narrow view of that larger theory than most of their contemporaries. This will appear from the general treatises of Professors Taussig and Fisher,[5] which fall within the next and final period of our study, and from the following passage in Professor Cassel's admirable book.

[1] *Work and Wages* (1908), II., pp. 15-16.
[2] *The Nature and Necessity of Interest* (1903).
[3] *The Rate of Interest* (1907).
[4] *Wages and Capital* (1896).
[5] Compare also Fisher's *Rate of Interest*, p. 230.

"Many well-intentioned persons have wasted their energy in semi-scientific attempts to prove the wrongfulness of interest. . . . If once this question were thoroughly cleared up, the same energetic criticism might be directed towards the really weak points in the present scheme of distribution, with immense advantage to social progress. Much of the antagonism to interest is in reality a disapproval, not of interest as a form of income, but of that distribution of property, which makes so great a part of the interest flow into the pockets of some few privileged individuals. Social reformers, therefore, will first have to direct their action against the laws of inheritance and the unearned increment of the rent of land, these being the two principal opportunities for men coming into wealth created by other persons or by the community; second, against all forms of monopoly, natural and artificial, facilitating the acquiring of large fortunes. But to complain of the inevitable fact that large income goes with large capital is senseless."[1]

§6. Though most of his work is concerned with other branches of economic theory, Professor Edgeworth has written several articles which deal in an interesting way with the theory of distribution. The most important of these is one, sixty pages long, in the *Quarterly Journal of Economics* for 1904.[2] Starting from the definition that "Distribution is the species of Exchange by which produce is divided between the parties who have contributed to its production,"[3] Professor Edgeworth approaches the simplest form of the old problem, which Ricardo, Say, and Sidgwick had clearly stated, but had not solved. Given two parties in this particular "species of Exchange"—that is to say, given two factors of

[1] *Op. cit.*, pp. 182–3.
[2] *The Theory of Distribution*, Q.J.E., Vol. 18, pp. 159–219.
[3] *Ibid*, p. 159

production, and two only—what causes determine their shares of the produce?

Professor Edgeworth argues that, "competition on both sides being presupposed, a limitation of supply on one side may be advantageous to that side, but not to both sides. The case of Distribution, compared with Exchange in general, in respect to such limitation of supply has only this peculiarity—that the danger of this policy defeating itself is in the case of Distribution specially visible and threatening." For here "conspicuous warning" is given to both parties "not to attempt to benefit themselves by a considerable reduction in their supply of service; for though they might possibly obtain a larger proportion, they would probably obtain a smaller portion, of the average product." Here we seem to be on the verge of an analysis of the conditions of increase of "portions" and "proportions" respectively, but Professor Edgeworth abruptly drops this line of reasoning and never picks it up again. He goes on to examine other points of theory, and in particular the question how far the incomes of business men are determined by their marginal productivity.[1]

§7. The late Professor Smart's *Distribution of Income*, published in 1899, is a book which has been widely read. His views are coloured by his business experience, and he is apt to look at questions of wages and profits mainly from the employer's standpoint. He is apt also to regard working men as ignorant and grasping, less virtuous and industrious than their employers, and lacking in sympathy

[1] This question was at one time much discussed. See also Edgeworth, *Economic Journal*, 1907, pp. 524 ff., Chapman, *Economic Journal*, 1906, pp. 523–8 and *Work and Wages*, II., pp. 11–13, Wicksteed, *Commonsense of Political Economy*, pp. 370–3, Layton, *Relations of Capital and Labour*, pp. 49–52, Carver, *Distribution of Wealth*, pp. 259 ff. The answer seems to be that the value of "entrepreneurs'" work is determined by the same causes as any other kind of work, and may be included in the same general formula.

for the difficulties and good intentions of the latter.[1] His book describes rather than explains the existing system, and consequently breaks little new ground. But a prominent place is given to the principles and methods of Trade Unions, and there is an interesting though very tentative chapter on Professional Incomes,[2] a subject on which very little has been written. He discourages sharp distinctions between land and capital,[3] and is doubtful whether any theory can be constructed to explain the relative movements of aggregate wages and aggregate profits.[4]

" Beginning with no thought of doing more than setting forth the methods of the present distribution of wealth," he found himself " led to express an opinion on its merits."[5] This opinion is that " in our examination of distribution, something like a rough justice has emerged "[6] The reason for this opinion, namely, that he considers income to be roughly determined by the value of the services rendered to society, has already been discussed.[7]

§8. An economist, whose work in some respects resembles that of Smart, is Professor J. B. Clark, who is thought by many to be " the greatest constructive general theorist that America has yet produced."[8]

Professor Clark published his *Distribution of Wealth* in 1899 and his *Essentials of Economic Theory* in 1907. In both books he adopts the narrowest traditional view of distribution. " The science of distribution should tell us

[1] See, for example, pp. 88, 117, 123, 133, 137, 164 and the very one-sided picture of modern industry on p. 168.

[2] *Ibid*, pp. 308–323.

[3] *Ibid*, pp. 43 and 333.

[4] *Ibid*, p. 232.

[5] *Ibid*, p. ix.

[6] *Ibid*, p. 324.

[7] See Part I., Chapter III., § 8, above. Compare, however, with the argument of the first edition of Smart's *Distribution of Income*, the preface to the second edition and his posthumous *Second Thoughts of an Economist*.

[8] Haney, *op. cit.*, p. 521. Professor Haney gives an interesting and suggestive account of the influence of American economic conditions upon Professor Clark's thought. (*Ibid*, pp. 512–3.)

primarily, not what any man personally gets as a total income and how well off he is compared with other men, but in what way the wages of his labour, the interest on his capital and the return for the entrepreneur's function are fixed. In technical terms that is saying that distribution is primarily functional and not personal."[1] And again, "the whole income of the world is, of course, distributed among all the persons in the world; but the science of distribution does not directly determine what each person shall get . . . What we wish to ascertain is solely what fixes the rate of wages, as such, and what fixes the rates of pure interest and of net profits, as such. When these rates are determined, a particular man's income depends on the amount and kind of work that he performs, the amount of capital that he furnishes, and the extent and kind of co-ordinating that he does."[2]

At the risk of tedious repetition something must be said concerning these provocative definitions. To say that "distribution is primarily functional and not personal" is to make a quite arbitrary assertion. The contrary view is just as plausible, and much more so, if we may assume that economists should answer the sort of questions which are likely to interest ordinary people. Further, Professor Clark, like other writers, in fact makes "functional distribution" not merely the primary, but the *sole*, subject of his reflections, whereas "functional distribution," as he defines it, forms only a part, and by no means the most important part of "personal distribution."

According to Professor Clark, in constructing our theory of distribution, we need to investigate simply the *rates of pay* of the various factors of production. Then, given the *amounts* of the various factors owned by a particular person, we know that person's income. We take

[1] *Essentials of Economic Theory*, pp. 89–90.
[2] *Distribution of Wealth*, pp. 5–6.

these amounts for granted, and make no investigation whatever concerning them. In particular, we make no investigation into the causes which determine the distribution of various amounts of the different factors of production among different persons. Any theory constructed on these lines must of necessity be hopelessly incomplete and one-sided. It would be equally reasonable, indeed it would be much more reasonable, to base a theory of distribution simply on an investigation into the causes which determine the amounts of the various factors owned by different persons and to ignore altogether the causes determining the rates of pay of these factors. Such a theory, though logically as incomplete as Professor Clark's, would do much more to satisfy common curiosity.

So much having been said by way of preliminary criticism, it must be admitted that Professor Clark develops his theory with great skill and subtlety. His "purpose is to show that the distribution of the income of society is controlled by a natural law, and that this law, if it worked without friction, would give to every agent of production the amount of wealth which that agent creates."[1] He argues that all factors of production, including land, are paid according to their marginal net products, and that the specific products of each factor can be disentangled and distinguished.[2] Each factor, therefore, obtains its own product, that which it can be said separately to produce.

On this thesis, he thinks, hinges "the right of society to exist in its present form, and the probability that it will continue so to exist."[3] For if this thesis be generally accepted, men will agree that the present division of

[1] *Distribution of Wealth*, p. v.

[2] *Ibid*, p. 195. Professor Clark seems to fall into the fallacy of supposing that marginal costs and products *govern* value. Compare Marshall, *Principles*, p. 522.

[3] *Ibid*. p. 3.

income is "honest," and if functional distribution is just, then personal distribution must also be just.[1] Arguments of this sort aptly illustrate the lack of imagination which is likely to result from so narrow a conception of the problems of distribution. For let us suppose that Professor Clark establishes his thesis, that each man receives what he produces, and let us assume that the notion of specific productivity is valid, and let us waive for the moment the serious question whether the owner of a field or a machine can, in any reasonable sense, be said to produce that which the field or the machine produces. Why should not the poor still say to the rich: "Why am I able to produce so little, and you to produce so much? The social arrangements which cause so gross an inequality of productive power are unjust and must be changed." At this point we are back on the old ground of resentment at great inequalities of income. It will take more to banish such resentment than a marginal, or even a specific, productivity theory of distribution, however conclusively that theory may be argued.[2]

Professor Clark contends that, in his treatment of the subject, "the theory of value is included within the theory of distribution."[3] But this is precisely the reverse of the truth. As has already been pointed out, his theory of distribution, like many others, is nothing more than three special cases of his general theory of value. As might be expected from the general nature of his theory, Professor Clark makes nowhere any reference to

[1] *Ibid*, p. 7.

[2] The marginal productivity theory "may be a good answer to the exploitation theory of wages, but that theory is mere froth on the surface of the waves . . . To regard the widespread popular sentiment that people should not be able to obtain incomes without working for them as the result instead of the cause of the recondite doctrines promulgated by Marx and others would indicate a remarkable simplicity of mind." Cannan, *Economic Outlook*, pp. 244–6.

[3] *Distribution of Wealth*, p. 19.

inherited wealth. Such a theory as his has no point of contact with the law of property, and no concern with its concrete details.

But in the period now under review, Professor Clark's theory is only an extreme example of a prevalent type. It will not be out of place, therefore, to consider here the astonishing neglect of the topic of inherited wealth by the economists of this time.

§9. Marshall's *Principles* contains only a passing reference (in the appendix on *The Growth of Free Industry and Enterprise*) to the effect of primogeniture on "the size of landed properties and . . . the capital which the owners of land have at their own command for working it,"[1] and a remark in a footnote that "the stability of the wealthy class in England has been promoted" by arrangements "which enable the heirs of a rich man to draw a secure and lasting income from his wealth, though they do not inherit the business ability by which he acquired it."[2] Marshall's reticence on the subject may no doubt be partially explained by the fact that his *Principles* is only a first volume and professes to deal only with foundations. Yet the inheritance of wealth is surely one of the most fundamental of economic facts.[3]

But no such explanation is available to writers who have aimed at expounding all leading economic principles in a single volume, and still less to those who have produced single volumes on Distribution alone. Let us then pass in review some of the most important of these.

[1] *Op. cit.*, p 742. [2] *Ibid*, pp. 620–1.

[3] These words were written before the publication of *Industry and Trade*, in which, however, I can find nothing more illuminating on this subject than the remark that "elasticity of mind and delight in hard work . . . are not often found among those who have inherited wealth" (p. 48), and that the changes in the French law of inheritance after the Revolution may have "lessened the inclination of a manufacturer to get together an expensive plant" (p. 118).

Professor Nicholson's *Principles* consists of three bulky volumes, the first of which was published in 1893, the second in 1897, and the third in 1901. Out of 1,200 pages, there is one short chapter of six pages on *Bequest and Inheritance*,[1] in which Professor Nicholson observes that restrictions on freedom of bequest have been gradually relaxed as civilisation has advanced, that freedom of bequest, together with light taxation of inherited wealth, is the ideal at which civilised nations should aim, and that Mill's proposal to fix a maximum sum, more than which no individual shall inherit, is " fantastical."[2]

Smart, at an early stage in his *Distribution of Income*, points out that some are heirs to property while others are not.[3] Here he lets the matter drop, but a few pages later he remarks that the majority of Englishmen are only " able to live at all, even by constant work, because the minority have inherited the tools of production, which they have an interest in lending. But, as the consequence of this beneficent action, there is in modern society a hereditary class which is not a privileged class, nor a class whose existence is a burden on other classes, but which has, all the same, the possibility of leisure, or of living in idleness, by lending to others what the others want."[4] There is no further reference to the subject till the closing pages of the book, when, in the course of his defence of the existing order, Smart suggests that, " if people, when living, are allowed to hand over wealth to

[1] " Bequest and Inheritance " in Vol. I. receives less than half the space, which is devoted to " Christianity " in the final, or peroratory, Chapter of Vol. III.

[2] *Principles*, I, p. 255. Professor Nicholson notices that freedom of bequest, together with freedom of contract, is a cause of inequality of incomes. (I, p. 242) The only other cause that he suggests is "habit," or rather the occasional breakdown of habit, since " the paths of fortune are often made by breaking through routine " (I, p. 269). This does not carry us far towards an understanding of the general causes of inequality.

[3] *Op. cit.*, pp. 63–4. [4] *Ibid*, p. 71.

other people, it is not reason to prevent them handing it over when they can no longer hold it themselves; at any rate the prohibition would lead only to giving it during life. But if we allow this liberty—and it seems bound up with the very existence of that which is usually supposed to bind society together and make it possible, the family—there emerges full blown the system under which we live."[1] Though not blind, therefore, to the significance of inherited wealth, Smart shows no inclination towards a thorough enquiry into its effects.

M. Colson, in his very full and in many respects admirable *Cours d'Economie Politique*, the first volume of which appeared in 1901, has one chapter on *Le droit de tester*. He argues that man has a natural right to possess the produce of his own labour, and that the right of giving to others, including the right of bequest, follows logically from the right of possession. For he who does not consume his wealth, nor let his property fall into disrepair, renders a service to society no less than he who produces new wealth, and is equally entitled to the natural reward of such service. Thus, he argues, the right to possession and transmission, legitimate in its origin, is transmitted, still legitimate, from generation to generation, and such rights conform, not only to equity, but to the public interest, since they stimulate men to labour, to the preservation of existing capital and to fresh saving.[2]

Dr. N. G. Pierson includes in the second volume of his *Principles* a discussion, chiefly illustrated by German facts, as to whether there should be a special law of inheritance for landed property.[3]

Professor Seager, in the first edition of his *Introduction to Economics* (1904), brushes aside inheritance as a serious

[1] *Ibid*, p. 332.
[2] *Op. cit.*, I., pp. 41–2.
[3] *Op. cit.*, pp. 263–299.

and permanent cause of inequality. "The influences which make for the disintegration of large inequalities of wealth are likely to predominate, and the very rich men of each generation are likely to be those who have acquired the greater part of their fortunes during their own lifetimes. This has been the case in the United States up to the present time, and there is nothing in the practice of paying interest and rent for the use of property fairly acquired that threatens to make it less the case in the future."[1] But, when he published a new edition in 1913, he omitted this passage and put nothing in its place.

Sir Sydney Chapman's one negative reference to inheritance has been noticed already.

All these references are meagre enough, but we have now to notice further that a considerable number of distinguished writers make no reference whatever to inheritance. There is no reference to it, as we have already seen, in either of Professor Clark's two books on distribution. None of Professor Edgeworth's articles on distribution contain any mention of it, nor does Professor Carver's *Distribution of Wealth* (1904), nor Professor Hadley's *Economics* (1896), nor Mr. Wicksteed's *Commonsense of Political Economy* (1910). Professor Pareto ignores it in his *Cours d'Economie Politique* (1896), and thereby falls into a startling positive error, concerning which more will be said shortly. Mr. J. A. Hobson never mentions it either in his *Evolution of Modern Capitalism* (1906), his *Economics of Distribution* (1907) or his *Industrial System* (1909). Always eager to criticise orthodox economists, Mr. Hobson here missed a golden opportunity.[2]

[1] *Op. cit.*, p. 546.

[2] Mr. Hobson's best known theory, which represents "under-consumption," or excessive saving, as the chief cause of trade fluctuations and unemployment, does not fall within the scope of this study. For it relates primarily to production, rather than to distribution. It is sufficient to remark that it has been rejected by practically all

§10. Only three economists during this period seem to have realised the extreme importance of inherited wealth in relation to the distribution of income. These are Professor Cannan in England, Professor Ely in America and Professor Rignano in Italy. The treatment of the subject by these three writers will be considered in due course, but it seems worth while at this point to make a short digression, and to enquire briefly into the causes of this strange neglect of so obvious a phenomenon.

§11. The French Revolution, as has already been noticed, terrified Bentham into opposition to any great change in the existing law of property, and his influence over his contemporaries deadened all fruitful speculation upon this subject. For new ideas are asphyxiated in an atmosphere of nervous caution. Again we have seen that " Ricardo, as became a stockbroker, took " private property " for granted,"[1] and that, with the exception of J. S. Mill and Sidgwick, most English economists meekly followed his example throughout the nineteenth century.[2] After Sidgwick thought on this subject seems to fade away like a stream in the midst of desert sand.

other economists and that its persistent reiteration by Mr. Hobson has tended to divert attention from other contributions made by him to economic thought. Among these there may be noticed, from our present point of view, his distinction between costs, productive surplus and unproductive surplus, developed at length in his *Industrial System*. But, though interesting and suggestive, this distinction is not very logically handled by its author.

[1] Cannan, *Theories of Production and Distribution*, p. 9.

[2] Professor Foxwell brings out this point very well in his Introduction to the English translation of Menger's *Right to the Whole Produce of Labour* (pp. x–xi). " If the anarchists in their vivid perception of the economic significance of law, have exaggerated its power to control the distribution of wealth, the economists as a body have unduly minimised it. The physicians of the last generation have sometimes been blamed for unduly pursuing anatomical to the neglect of physiological studies. The economists undoubtedly fell into the opposite error. They were too apt to take their ' political anatomy ' for granted, if not altogether to ignore it, and this applies with special force to that part of social anatomy which should deal with the general system of law. Hence, though they certainly did not underrate the

It may, of course, be said that the inheritance of wealth is a perfectly obvious process, which needs no discussion. But economists have never yet refrained on principle from discussing the obvious. In this they have been perfectly right, since it is only by first understanding the obvious that we can hope to understand the obscure. Most economic textbooks abound with necessary platitudes.

Moreover, the purpose of discussion is to prevent error, and mere absence of discussion often breeds error. Thus the opinion that inherited wealth in general is an obvious fact, needing no discussion, is easily transformed by loose thinking into the opinion that the laws, which at present govern the inheritance of wealth, are part of the inevitable order of nature, and stand almost on the same footing as the facts of life and death, or the change of the seasons. The former opinion is shallow, but comparatively harmless, the latter is both erroneous and harmful. It is conceivable, of course, though it is unlikely, that the existing laws of property in England are the best that could be devised. But an English economist who holds this view should surely give some grounds for doing so, and should compare the effects of our own and of other laws.

In seeking to explain the defective treatment of inherited wealth in the traditional theory of distribution, we must remember that that theory was concerned almost entirely with categories, and hardly at all with persons as such. The phenomenon of inherited wealth nowhere fits into such a theory. For inherited wealth at any given time is merely a part of the existing stock of land and capital, and the conditions of supply of land and capital are not affected by the question whether a

importance of such specific laws as those determining tariffs and taxes, there is a marked failure to appreciate the economic effects of the more fundamental and general law of property and contract."

given supply of land or capital is owned by many persons or by few.[1] Moreover the stress laid, in the traditional theory, upon the origin of capital tends to obscure the distinction between saving and owning.

We should notice also that the economists of the late eighteenth and early nineteenth centuries in England had their eyes fixed upon the "great industry" which was springing up in the North, and in the conduct of which inherited wealth played at first but a trifling part. With the steady growth of general prosperity the importance of inherited wealth rapidly increased, but the main lines of economic theory had already become fixed, and practically no account was taken of this significant development. Until recent times, land and houses have been by far the most important form of property, and the peculiar features of the law of inheritance of landed property have indeed been sometimes cursorily mentioned by economists.[2] Moreover, the most familiar type of capitalist in the first part of the nineteenth century, and to some extent even to-day, is the "self-made man," who owes nearly all his wealth to his own luck, enterprise and saving. With this familiar type in their mind's eye, some find it hard to realise how important a part is played by inheritance in many incomes from property.

One further consideration must be noted. It has often been remarked that the sympathies, conscious or unconscious, of some of the earlier economists were with the propertied, rather than with the working, classes. It was not to be expected that these writers would scrutinise the law of property very closely or critically.

[1] Except to this extent, that there will, perhaps, be more new saving, if land and capital are very unequally distributed, than if the same quantity of land and capital is distributed more equally among the same number of persons. But this point is not dwelt upon by those who developed the traditional theory.

[2] Thus McCulloch, as we have seen, expressed the opinion that the English law of primogeniture and entail was incapable of improvement.

Later economists became, or at least tried to become, impartial. In some cases their desire to keep economics impartial seems to have turned into a desire that economic doctrines should be equally acceptable to all classes, and should thus promote industrial progress and contentment, together with unsensational and "uncontroversial" reforms,—better education, better health regulations and the like.

But, though impartial professionals are dumb, it might have been expected that unsophisticated amateurs would have had much to say about inheritance. Yet curiously enough this is not the case. In particular, in the popular controversy between "socialism and individualism," the one side have generally lost sight of it, because their eyes have been fixed upon far larger reconstructions,[1] while the other have also passed it by in silence, generally because it has not occurred, or been suggested, to them, but sometimes perhaps because they have felt it to be a weak point in their system.

§12. It has already been remarked that neglect of inheritance has led economists into positive, as well as negative, errors. A mild instance of such a positive error on the part of Sir Sydney Chapman has already been noted.

A far more remarkable instance is to be found in the suggested law of distribution, which is known as Pareto's Law. Under pressure of unanswerable criticism, Professor Pareto has now slightly modified his statement of this law.[2] But it will be most instructive to consider it in its earliest and most unqualified form, for it is in this form that it affords the most striking example in the

[1] Though the "abolition of inheritance" is demanded in the *Communist Manifesto* of Marx and Engels, and had been advocated by St. Simon. Compare Gide et Rist, *Histoire des Doctrines Economiques*, pp. 250–1.

[2] See his *Manuel d'Economie Politique* pp. 371–2.

whole history of economic writing of positive error, due to neglect of the fact of inherited wealth.

In his *Cours D'Economie Politique* (1896) Professor Pareto has a long chapter on " the Curve of Incomes."[1] He there argues that the distribution of income among persons is not a matter of chance, but, on the contrary, that all statistical evidence points to the existence of a universal law, which may be expressed by a simple mathematical formula.[2] In all the cases which he examines, Professor Pareto finds that the curve of incomes conforms to this universal type. " The shape of this curve seems hardly to depend at all on the different economic conditions of the countries considered, since the effects are practically the same for countries as different as England, Ireland, Germany, the Italian towns and even Peru."[3]

The shape of all income curves is such that neither an increase in the minimum income, nor a diminution in the inequality of incomes, can be brought about unless the total income increases faster than the population.[4] This Professor Pareto proves mathematically. He admits that an " accidental and temporary diminution of inequality " can take place without any change in the ratio of total income to population, as for instance " if a millionaire should die and divide his fortune among six sons."

[1] Vol. II., pp. 299-345.

[2] This formula is, $\log y = \log A - a \log x$, or , more compactly, $x^a y = A$, where x is any given income, y the number of persons having an income greater than x, and a and A constants, which vary from place to place and from time to time. It is important to remember that Pareto's law is not based on any *a priori* reasoning, but wholly on statistical evidence. It is a piece of pure induction which should delight the partisans of the Historical School !

[3] *Ibid*, p. 312.

[4] *Ibid*, p. 320. The assumption that increased production per head tends to diminish inequality is often made. Compare, *e.g.*, Pierson, *Principles of Economics*, II., pp. 5-6. In general, this assumption is quite baseless.

But he brushes aside qualifications of this kind. "It is evident that a general formula cannot take account of such particular cases, any more than general mortality tables can give us any information as to the probability that a particular individual will live or die."[1]

On this single chapter of Professor Pareto's book, a great deal might be, and has been, said. His method of measuring the inequality of a given distribution of income, for instance, raises interesting questions.[2] Again, the scientific value of many of his statistics is very small, those for example, which relate to Bâle in the fifteenth century and to Peru in the sixteenth, and it is questionable whether the residue gives a sufficient basis for any reliable generalisation. Further, the degree of precision with which the various statistics cited actually fit his mathematical formula is a matter for careful investigation. Here, however, only one point need be made, namely that, from the very nature of things, "Pareto's law" cannot be universally true. This is clear from a moment's reflection upon the laws of inheritance, which present the same leading features in all the cases examined. The mere possibility of a drastic change in these laws destroys the argument that the shape of income curves must always conform to a universal type.

Professor Pareto is one of the few writers with a strong grasp of general principles, who has attempted to deal comprehensively with statistics of the distribution of income between persons. His attempt is noteworthy and characteristically bold and original. But his "law" had only to be stated, in order to provoke the criticism that its author had ignored the fact of inherited wealth. Precisely this criticism was effectively made by Professor

[1] *Ibid*, p. 321.

[2] I hope to deal with this aspect of Pareto's Law in my forthcoming study, referred to in the Preface to his book, on the *Measurement of the Inequality of Incomes*.

Benini in his *Principii di Statistica Metodologica* (1906).

§13. Professor Ely has been mentioned above as one of the few economists who during our present period recognised the importance of inherited wealth. He published in 1891 an interesting article on *The Inheritance of Property*,[1] the argument of which is worth summarising here.

Many proposals, he points out, are made for securing a greater equality of conditions. But most of these, such as Socialism and the Single Tax, apart from other objections, are obstructed by powerful private interests. "Wise social reform will always seek the line of least resistance," and one such line is the reform of the laws of inheritance. "Once in a generation nearly all property changes owners. There is a perpetual flow of property from the dead to the living, and it is possible by means of law to exercise much influence over this current." Opinion as to the justice or injustice of allowing freedom of bequest varies in different times and lands, and affords no certain guidance to the legislator who, in framing the law of inheritance, should have three objects in view. First, the gratification of the desires of individuals about to die, in so far as these do not conflict with the public good; second, the preservation and security of the family; third, the welfare of society in general. In seeking this third object, he should aim in particular at a wide diffusion of property and at a universal correlation between service and reward.

Professor Ely argues that the right of free bequest should be left intact, subject to the following conditions.

First, the surviving spouse, children and other members of the "family circle" should be entitled to a legitim.

Second, the "family circle" should be defined narrowly.

[1] *North American Review*, Vol. 153, pp. 54–66. He returns to this subject in his *Property and Contract in Relation to the Distribution of Wealth*, published in 1914, which is referred to below.

Not only should every one within it be entitled to a legitim indestructible by a testator, but no one outside it should have any rights of intestate succession. Modern laws allowing rights of intestate succession to distant relatives are mere survivals of the time when large family groups lived in partnership under the authority of a patriarch. In modern times there is no rational basis for such extended family feeling and, in default of near relatives, the State should take all the property of intestates.

Third, a child's legitim ought never to be so large, as to relieve the child from the necessity of working in order to secure a comfortable income.

Fourth, the legal right to a legitim should be coupled with a contingent legal duty of support. Rights and duties would thus be coordinated. Just as parents are bound to support children during their youth, so should children be bound to support parents in their old age, whenever the latter were unable to support themselves. Such a law, Professor Ely thinks, would practically abolish pauperism.

Fifth, all inheritances above a fixed minimum should be taxed on a scale graduated both according to the amount of the inherited property and the relationship of the person inheriting to the late owner.

Professor Ely holds that these reforms are in harmony with democratic sentiment, and are consistent with the fundamental features of existing society and with other lines of progress, that they help to equalise opportunities, that they strengthen family ties, and that they tend to a wide diffusion of property and to an increase in the number of families with an ample competence.

"It is these families with a competence lifting them above a severe struggle for bare physical necessities, which carry forward the world's civilisation. It is from these families that the great leaders of men come, and not from either of the two extremes of society, the very

rich or the very poor, both of which extremes we wish to abolish. . . . For the sake of the sons of the rich, as well as for the sake of the sons of the poor, we need a reform of the laws of inheritance."[1]

§14. But perhaps the most striking contribution during this period to the discussion of inherited wealth is Professor Rignano's *Un Socialismo in Accordo colla Dottrina Economica Liberale*, published in 1902.[2] Professor Rignano is conscious of the weight both of socialist criticisms of the existing order, and of individualist criticisms of many socialist proposals. His book is an attempt to reconcile socialist aspirations with the leading principles of the "liberal school of economists."

He argues that the general level of wages is too low to allow the majority of workers to acquire, by saving, any appreciable income from property. By this fact, coupled with the existing rights of private property, the broad division of society into wage earners and property owners is stereotyped. The right of inheritance "immortalises private fortunes," makes it possible for them to increase indefinitely, and is one of the most powerful causes of the enormous inequality of modern incomes.

The arguments for and against the modern rights of inheritance and bequest are then reviewed, and Professor Rignano concludes that it is possible, by appropriate reforms, to get rid of most of the bad effects of the present system, while retaining, and even strengthening, its

[1] For a discussion of Professor Ely's proposals see Part IV. below.

[2] A French translation of this book appeared in 1904 under the title of *Un Socialisme en Harmonie avec la Doctrine Economique Libérale*, and a German translation of the most important chapters in 1905 under the title *Los von der Erbschaft*. To this translation Herr Bernstein wrote a preface, supporting Professor Rignano's proposals, but the German Marxists disapproved of them, as being "unscientific" and too gradual in their operation. By "unscientific" they meant that no reference could be found to them in the Gospel according to Marx. They did not admit the doctrine of "progressive revelation." See also an article by Professor Rignano in the *Economic Journal*, Sept., 1919, entitled *A Plea for a Greater Economic Democratisation*.

good effects. He points out that the modern right of private property is not a single and indivisible right, but a collection of separate rights, such as use, contract, gift, bequest, and inheritance. The rights of bequest and inheritance could be withdrawn, partially or wholly, and a well-defined system of property rights would still remain.

Under the modern law of patents, the inventor has a right of property in his invention, but a right limited in point of time. Why should not the same principle be applied to him who saves? The period of time, during which the full right of property should be allowed, ought in each case to be the shortest period which is necessary in order to stimulate the property owner to the greatest economic activity. At the end of this period the property, whether invention or accumulated capital, should become the property of all.

Professor Rignano proposes, therefore, to establish what he calls a temporary patent right in accumulations of capital ("un brevet d'accumulation à durée temporaire"). "The right of free bequest should be complete as regards property accumulated by saving and personal exertion, it should be considerably restricted as regards property received by inheritance, and it should be progressively restricted until it is completely annulled as regards property which has been transmitted a certain number of times from the dead to the living."[1] In his own words, Professor Rignano proposes to establish an inheritance tax which shall be "progressive in time."

Under this arrangement everyone would be able to hand down his savings to his heir, practically undiminished by taxation. But the heir could not hand down this inherited property to his own heir, without paying a heavy tax. Professor Rignano argues that all would

[1] French edition, p. 241.

then be stimulated to work and to save, for, unless a man at the time of his death owned more property than he had himself inherited, there would be little left, after the payment of taxation, for his own heirs. Only the excess of what a man owned at his death, over what he had received by inheritance, would escape with moderate taxation.

Discussion of the practicability of this proposal and of its probable effect must be deferred till a later stage of this book.[1] But the proposal itself is exceedingly suggestive and highly original. It points the way to new and unexplored fields of economic analysis, and to possibilities of compromise, hitherto quite unconsidered, between the system of private property, as it exists in modern states, and socialist systems, as commonly conceived. Professor Rignano also realised the importance and difficulty of obtaining a satisfactory measure of the inequality of incomes.[2]

§15. There is a marked contrast between the two most distinguished French economists of this generation, M. Colson and Professor Landry. The latter is an "interventionist," who in his *L'Utilité Sociale de la Propriété Individuelle* (1901) undertakes an illuminating analysis of the effects of modern property law on distribution. It is remarkable, however, that, in spite of his subject, he misses the significance of inheritance. His *L'Intérêt du Capital* (1904) ranks with the works on the same subject by Professor Irving Fisher and Professor Cassel, and contains an excellent appendix on the conflicts, which tend to arise under modern conditions between the economic interests of individuals and of the community. His *Manuel d'Economique* (1908) is perhaps the best general textbook in the French language.

M. Colson, on the other hand, is the lineal descendant

[1] See Part IV., Chapters IX. and X. below. [2] *Ibid*, pp. 181 ff.

of the old French Individualist or "liberal" school, of which Bastiat may be regarded as the founder. It is the chief doctrine of this school that only the free play of economic forces can bring about economic improvement and that existing checks on "free competition" are the cause of poverty and all other economic evils. The "liberal" school are specially opposed to Protection and to Socialism, and in a lesser degree to most modern "social reforms."[1] M. Colson, therefore, is no friend of "l'interventionisme," the inadequacy of which, he thinks, will merely irritate and disappoint the workers, who will go on to demand still more fundamental and disastrous changes in the social order.[2] He holds that the inequality of incomes is justified by the inequality of participation in production, and that the latter inequality is even greater than the former. Moreover "natural economic laws" will defeat all attempts to equalise economic conditions by legislation.[3]

§16. An interesting analogy may be drawn between French Individualists and German Socialists. Both enunciate propositions too universal and simple to be true. To the former "free competition" is the philosopher's stone, to the latter "capitalism" is the universal bogey. The former argue that "free competition" must diminish inequality, the latter that "capitalism" must increase it. On analysis, "free competition" and "capitalism" appear to mean much the same thing, and the general arguments on both sides are seen to be hopelessly inadequate. There are, under modern conditions, certain forces at work which make for a diminu-

[1] Other modern members of this school are Leroy-Beaulieu, Pareto, Molinari, and Yves Guyot. The causes of the prevalence of this sterile type of economic thought in France are suggestively discussed by Professor Haney in his *History of Economic Thought*, pp. 237 and 504.

[2] See his *Organisme Economique et Désordre Social* (1912).

[3] *Cours d' Economie Politique*, Vol. I., pp. 94 ff.

tion, and certain others which make for an increase, in inequality. The balancing of the one against the other is a more delicate and difficult task than either fanatical Individualists or fanatical Socialists generally realise.

§17. Socialists during the period now under review produced practically no distinctive theory. In England the opportunism of the Fabians was not backed by any general theory, though their conception of a National Minimum, as an object of public policy, is noteworthy.[1]

In Germany Herr Bernstein, himself a Social Democrat, published in 1899 his *Voraussetzungen des Sozialismus*,[2] in which, by the aid of recent statistics, he conclusively refutes many of Marx's leading propositions. For instance, "it is quite wrong to assume that the present development of society shows a relative or indeed absolute diminution of the number of members of the possessing classes. . . . If the working class waits till 'capital' has put the middle classes out of the world, it might take a long nap."[3] The realisation of Socialism and the success of the socialist movement, says Herr Bernstein, do not depend on the truth of Marx's theory. The latter may be false, but Socialism is still the final and desirable goal of economic progress. But "suppose the victory of Socialism depended on a constant shrinkage in the number of capitalist magnates, social democracy, if it wanted to act logically, would have to support a heaping up of capital in ever fewer and fewer hands, or at least to give no support to anything that would stop this shrinkage. As a matter of fact social democracy does not act on this principle," as is shown by its attitude toward questions of taxation and other social reforms.

[1] See Webb, *Industrial Democracy*, pp. 766–784, and *Socialism and the National Minimum*.

[2] An English translation of this book under the title of *Evolutionary Socialism* was published in 1909.

[3] *Evolutionary Socialism*, pp. 48–51.

"It is not social democracy which is wrong in this respect. The fault lies in the doctrine which assumes that progress depends on the deterioration of social conditions."[1] This frank and commonsense criticism of the master infuriated the more faithful of his disciples.

§18. Another book which has had an important and wholesome influence is Sir Leo Chiozza Money's *Riches and Poverty*, which was first published in 1905 and in five years ran through ten editions. It contains a vivid presentation of the statistics of distribution in the United Kingdom, the substantial accuracy of which has never been disproved. Sir Leo shows that, of the total income of the country before the war, half was received by about 12%, and more than a third by about 3%, of the population, while, of the total private property of the country, about two-thirds were owned by less than 2% of the population.[2]

These figures, very startling at first reading, help to give perspective to discussions of distribution. Who would have inferred such a state of things from a study of the laws of rent, interest, and wages, as expounded, for example, by Professor Clark, and from the reasoning which leads up to the proposition that, since "each man gets his product," distribution is "honest" and justice reigns?

§19. We may complete our survey of this period with some account of the writings of Professor Cannan. Though these are largely critical, they contain many valuable positive suggestions, to some of which, as I have already stated, the general form of the present volume is largely due.

Professor Cannan traces the development of his own economic opinions in a sketch, which forms the intro-

[1] *Ibid*, pp. 212–13.

[2] In all these estimates the wives and children of wealthy men are included in the minority of wealthy persons, who form so small a percentage of the population.

duction to a collection of essays reprinted in 1912 under the title of *The Economic Outlook.* In 1893 he published his *History of the Theories of Production and Distribution in English Political Economy from* 1776 *to* 1848, that is to say, from Adam Smith to Mill. His judgment of the "classical economists," based upon a highly detailed examination, is, on the whole, very unfavourable. He points out that, having dealt after a fashion with the causes of a greater or less production, they fixed their attention almost exclusively on the causes which determine wages per head, profits per cent. and rent per acre.[1] These three enquiries constituted almost the whole of the classical theory of distribution. This theory Professor Cannan calls "Pseudo-Distribution," as distinguished from "Distribution Proper," which should deal with the following questions: first, "what determines the proportions in which the total produce is divided between the class of labourers, the class of capitalists, and the class of landlords, or, as it is put metaphorically, between Labour, Capital, and Land?" and second, "what determines the distribution of aggregate wages among individual labourers, aggregate profits among individual capitalists, and aggregate rent among individual landlords?" He holds that, with most of the early English economists, "practical aims were paramount, and the advancement of science secondary."[2] Their theories were of small scientific value, but of great practical utility in combating such follies as the Corn Laws and the old Poor Law. These theories, however, proved harmful and misleading, when applied to the practical problems of more recent times, and the modern theories which are replacing them, though in many respects unsatisfactory, are at any rate more correct and less likely to lead to practical mistakes.[3]

[1] *Op. cit.*, Chapter VII. [2] *Ibid*, p. 384. [3] *Ibid*, pp. 392 ff.

In 1905 Professor Cannan published in the *Quarterly Journal of Economics* an article on the *Division of Income*, which marks a turning point in the development of economic theory.[1] The article was written, as he elsewhere explains,[2] at a moment when it seemed to him "that the old doctrines about wages, profits, and rent were in danger of being superseded by a very carefully thought-out theory which might not be incorrect in itself, but which answered no question which was of the least interest to mankind. . . . Since 1905, however, there has been a change for the better, and the attempt to treat Distribution as subordinate to the discussion of Value is gradually being abandoned."

The argument of this important article may be summarised as follows. The theory of distribution should "furnish a general answer" to the question, "why inside each community some individuals and families are above and others below the average in wealth." But the current theories do not, even approximately, do this. "Economists sometimes vaguely wonder why economic theory is so unpopular that books upon it have a very small sale, and in the greatest centres of population lectures on it by the best professors will attract at the most an audience of forty or fifty, and usually much fewer than that. Is there anything in this to excite surprise, if we reflect for a moment on the inadequacy of the answer furnished by the theory of distribution, as at present taught, to the questions in which the ordinary person is interested?" Professor Cannan then pictures, in amusing fashion, the feelings of an intelligent young man who, moved to economic study by dissatisfaction with the contrasts between riches and poverty, attends a course of lectures of the traditional type concerning wages per head, interest per

[1] This article is reprinted in *The Economic Outlook*, pp. 215–253.
[2] *Economic Outlook*, pp. 28–9.

cent., and rent per acre. Dissatisfaction with economic contrasts gradually gives way to dissatisfaction with traditional economic theory. . . . "Our enquirer goes home in a rage, and will attend the professor's lectures no more. Can we wonder?"

"I do not think," he continues, "that anyone will have the hardihood to assert that the exclusion from expositions of economic theory of any consideration of the causes which determine the division of the whole income between labour and property and the division of property's share between individual proprietors has been deliberate. I know of no economist who has asserted that the consideration of these matters is not a proper part of the theory of distribution."[1] An orthodox economist would rather say, either that the traditional doctrine answers all the questions here suggested, or that no general theory concerning them can be constructed, or, again, that they are unimportant and not worth answering. But none of these defences will stand.

Professor Cannan then proceeds, in the course of twelve pages, to sketch in barest outline the new theory which he considers to be required. No attempt will be made here to condense the argument of these twelve pages, the main points in which will be dealt with at later stages of the present volume.[2] It is sufficient to notice that new ground is broken and that particular stress is laid upon the influence of inherited wealth.[3] "Everyone knows that, in all except the newest countries, the inequality in the amounts of property which

[1] Before these words were written Professor J. B. Clark, as we have already seen, had had the hardihood to assert this, and Sir Sydney Chapman came very near to asserting it a few years later.

[2] In Parts III. and IV. below.

[3] In his *Elementary Political Economy*, published in 1888, Professor Cannan had long before insisted that "if saving were the only means by which individuals could obtain property, colossal fortunes would be almost unknown and very large fortunes would be much rarer than they are" (p. 100).

individuals have received by way of bequest and inheritance is by far the most potent cause of inequality in the actual distribution of property. Reflection further suggests that the comparative potency of this cause is likely to grow, rather than to diminish, in the future. For as time goes on, the savings of each generation of men must come to bear a smaller and smaller proportion to the property which has come down to them from previous generations."

Professor Cannan points out that attempts are sometimes made to support existing inequalities, and in particular the hereditary principle in distribution, on purely ethical grounds. He holds that such attempts ought not, and are in fact unlikely, to succeed. "The true defence of the inequalities of the distribution of income is the relative and partial defence afforded by purely economic considerations." Great inequality involves a great waste of economic welfare, but it is for the present a necessary evil. Yet "there are many good reasons to suppose that it is greater than is necessary, and for hope, at any rate, that it may in the course of time be largely reduced, if not altogether abolished, without any appreciable injury, and perhaps even with advantage, to production." But "in order to be able to judge correctly whether particular plans for reducing the inequality are desirable or not, we must have a theory as to the causes of inequality." Such a theory would have both scientific value and practical utility. But it has still to be created. How great has been the influence of this article on the *Division of Income* is an interesting speculation. But that it has been considerable, especially in America, is clear.

Professor Cannan's attitude towards Socialism is characteristic of his general attitude. He points out that, in England at any rate, modern economists are far less hostile to Socialism in general than were their prede-

cessors of the classical school. "This change is due in great measure to . . . the doctrine of marginal utility, which stamps as economical many things which could formerly be recommended only on 'sentimental' or non-economic grounds."[1] And thus, so far as distribution is concerned, "the economist of the present day finds himself in considerable sympathy with socialist aspiration." But he has also to consider the question of production. Even here, however, the old-fashioned arguments against Socialism—the universal need for the stimulus of economic self-interest, the unchangeability of human nature, the danger of over-population, and so forth—are far from being conclusive. To the modern economist, therefore, "the question is one of organisation. Could production be as well arranged in a Socialist system" as it is now? "Would the organisation meet the consumers' wants as accurately?" That is to say, the question is entirely relative to time, place, and special circumstances. "Nobody thinks that Wessex could have had a socialist organisation of production with advantage thirteen hundred years ago, and none but fanatics think that Great Britain could with advantage establish socialist arrangements at the present moment." But "modern economics contains nothing to show that gradual change may not eventually, in a distant future, evolve some form of organisation which at that time will work well and better than the unconscious organisation" of the present day. Each change which is made or proposed should be considered on its merits, a bad change should not be supported because it appears to tend towards, nor a good change opposed because it appears to tend away from, either the Socialist or the Individualist ideal. For neither of these ideals can be unconditionally defended.

[1] This and the following quotations are from *Theories of Production and Distribution*, pp. 405–7. Compare *Economic Outlook*, pp. 53–86.

CHAPTER VIII

Seventh Period : 1911–1918.

§1. Professor Taussig's *Principles of Economics*, published in two volumes in 1911, contains no large, new ideas, though full of originality in points of detail and illustration. Nevertheless it may well be regarded as marking the beginning of a new period in the development of economic theory. It covers a wide field and has been welcomed by many as the most satisfactory general textbook yet produced. Criticisms on important points have been few. Professor Taussig has succeeded in exhibiting a large and stable body of theory, on the substance of which practically all modern economists are in agreement, and in showing that little scope remains for profitable controversy over most of the central doctrines of economic science.

His theory of distribution is the orthodox modern theory, modified and elaborated so as to meet the most recent criticism. The theory of value, which naturally precedes it, is treated adequately, but not, as in some modern books, at disproportionate length. It occupies nine chapters out of the seventy, into which these two volumes are divided.

In developing the theory of distribution, Professor Taussig declines to adopt the phraseology of Professor Clark and others, who impute specific productivity to the various factors of production. He makes it clear that in his opinion this question is little more than a verbal one.[1] But his conclusion, which conforms with

[1] *Op. cit.*, II., pp. 7–8.

commonsense, is that only labour can reasonably be called " productive." Neither land nor capital is an independent factor of production, and no separate or specific productivity can in reality be attributed to them. " Labour applied in some ways, through the use of tools, yields more than labour applied in other ways; in this sense only is there a productivity of capital. . . . Labour on some land yields more than labour applied on other land; in this sense only is there a productivity of land."[1] Again " there is no separate product of the tool on the one hand, or of the labour using the tool on the other; there is a joint product . . . We may disengage the causes determining why and how the labourers who use and make the tools get wages, from the causes determining why and how the owner of the tools gets interest; but we can disengage no concretely separable product of labour and capital."[2] We can, however, usefully speak of the " marginal net products " of the various factors, provided that we do not attempt to read too much into this phrase.

For the rest, Professor Taussig gives a clear exposition of the causes which determine interest, rent, wages, and business profits, the differences of earnings in different occupations, and the growth of population. It is in no respect strikingly original, but it is on the whole the best and most up-to-date statement, at moderate length, of this great body of fundamentally important doctrine.

He winds up his theory of distribution with an excellent, though short, chapter on *Inequality and Its Causes.* He points out that " the overshadowing fact in the distribution of property and income is inequality,"[3] and that " the causes of inequality are reducible to two—inborn differences in gifts, and the maintenance of acquired

[1] *Ibid*, II., p. 58.
[2] *Ibid*, II., pp. 197–8.
[3] *Ibid*, II., p. 238.

advantages through environment and through the inheritance of property."[1]

As to inheritance, "its influence is enormous,"[2] both directly and indirectly. It is defensible only in so far as it is essential to the maintenance and increase of capital. Applying this criterion, the taxation of inherited wealth within reasonable limits is obviously desirable. So, too, is the restriction to near relatives of the deceased of the right of intestate succession, and perhaps also, though we are here on less certain ground, Mill's scheme for fixing a maximum sum, more than which no person shall be allowed to inherit. But the French system of the legitim is of much more disputable advantage.[3] As regards the future, "the institution of property can be refined," but inheritance, considerable inequality and a leisured class will probably long continue.[4]

This is the first time that a chapter of this kind has found a place in a general treatise on economic principles. At first sight the chapter looks like an afterthought, introduced rather awkwardly at the end of a theory of distribution which in its general arrangement follows traditional lines. But a careful reading of Professor Taussig's book dispels this idea. For he constantly draws attention to the facts of inequality and inheritance, when these are relevant to other parts of his theory, and in this respect his book is a great improvement on those of earlier writers. His argument moves always in the real world, and seldom loses touch with modern facts.

He devotes three chapters to Socialism,[5] and reaches much the same conclusions as Professor Cannan. He holds that most of the current objections to Socialism are unsound, but that there are serious difficulties in the way of a socialistic organisation of industry. In

[1] *Ibid*, II., p. 246. [2] *Ibid*, II., p. 247. [3] *Ibid*, II., pp. 249–251.
[4] *Ibid*. II., p. 256. [5] *Ibid*, II., pp. 443 ff.

the next few generations "public ownership will spread, though how far we cannot be sure. The plane of competition will be raised; the institutions of property and inheritance will be narrowed in scope. For the immediate future we see some reforms clearly called for, others awaiting enquiry and trial." As to the distant future, "little that we now do can have much effect in shaping it" and it is wisest to adopt an agnostic attitude.

§2. In another recent American textbook, Professor Irving Fisher's *Elementary Principles of Economics*, published in 1912, inequality and its causes also occupy a more prominent place than in the older books.[1] Professor Fisher distinguishes two modes of distribution of income, first, between the agents or instruments that produce it, and second, between the persons who receive it.[2] He points out that many economists have confused the two, and that, as regards the second, "no other problem has so great a human interest as this, and yet scarcely any other problem has received so little scientific study."

Inequality of incomes, once established, tends by reason of inheritance to perpetuate itself, especially in view of the low birth-rate among the rich, while poverty also is handed down from one generation to another. The distribution of property, in short, "depends on inheritance constantly modified by thrift, ability, industry, luck, and fraud."

The possible size of individual fortunes depends also on the size of the markets to which individuals have access. This relation is very important, for "practically

[1] In England many economists still fail to perceive the full significance of inheritance. Thus so able a writer as Mr. W. T. Layton holds the incomplete view that "the grossest inequalities in the distribution of wealth are due to speculation and the appreciation of capital values of various kinds." *Capital and Labour* (1913), p. 65.

[2] The following sentences summarise the last two chapters of his book.

it means that in these modern times, when almost the whole world is one great market, the possibilities of individual fortunes are greater than ever before." But there is an ultimate limit to the increase of income by continual reinvestment, since continual saving on a sufficiently large scale will bring down the rate of interest. In the future the right of inheritance is likely to be limited both as regards time and as regards amount. "Time limits" of various kinds are, indeed, likely to be imposed upon many property rights, and inequality is likely to be much diminished. Prostitution and political corruption are, in Professor Fisher's view, largely due to the inequality of incomes.

§3. In England, the most important book of the last few years before the war is Professor Pigou's *Wealth and Welfare*, published in 1912. This book discloses some of the opportunities open to the present generation of economists of building upon the foundations which the last generation have made secure. The influence of both Sidgwick and Marshall is evident, but Professor Pigou's results are more clear-cut and decisive than those of either of his two Cambridge predecessors, and he deals to a greater extent than they with the detailed economic problems of practical statesmanship. One of the most striking features of this book is the frequent demonstration that lines of thought, apparently quite independent of one another, converge in some general and far-reaching proposition. *Wealth and Welfare* well illustrates Marshall's saying that modern economists, in the development of their analysis, "are finding the Many in the One, and the One in the Many."[1]

It must suffice here to indicate a few of the leading ideas of this book, which is likely to exercise a great influence on future theories of distribution. Differing from

[1] *Principles*, p. 777.

Professor Clark, Professor Pigou regards distribution as primarily personal, and not functional, though "the familiar analysis of the economists" throws some light upon distribution between persons, since "no great error is introduced if we identify the income of the poorer classes with the receipts of the factor labour."[1] Other things being equal, a diminution of the inequality of incomes is desirable,[2] and a brief discussion follows of alternative measures of inequality.[3] In a difficult argument, impossible to summarise, Professor Pigou examines the effects of inventions and of changes in the supply of various factors of production upon the relative and absolute shares of these and other factors.[4]

The conception of the marginal net product, originating in the theory of distribution, is applied by Professor Pigou to the theory of production. He starts from the proposition that, in general, production is greatest, the more nearly equal are the marginal net products of resources in different uses.[5] He then examines various causes which tend to make marginal net products *unequal* in different uses, and therefore tend to diminish production,[6] and this examination throws further sidelights on distribution.

The comparative effects upon production of simple competition, of various forms of private monopoly, of co-operative enterprise, and finally of a socialistic organisation of particular industries are then considered.[7] Like Professors Cannan and Taussig, Professor Pigou's general conclusion is that the desirability of Socialism is relative to time, place, and special circumstances.

[1] *Op cit.*, pp. 78–9. "Labour" is used, throughout the book, as equivalent to manual labour. The chief distinction between classes is not, therefore, between workers and property owners, but between manual workers and the rest of the community.

[2] *Ibid*, p. 24. [3] *Ibid*, pp. 23–8. [4] *Ibid*, pp. 80–95.

[5] *Ibid*, pp. 104 ff [6] *Ibid*, pp. 109–171. [7] *Ibid*, pp. 172–292.

He then passes to a direct study of distribution between persons, and particularly of various proposals for the improvement of distribution by the transfer of resources from the richer to the poorer classes.[1] The argument of this part of the book is exceedingly valuable, but does not lend itself to condensation. He concludes that such transfers are unlikely to be of permanent benefit to the poorer classes, if they diminish production.[2] But they do not necessarily diminish production, and "there can be little doubt but that plans could be devised, which would enable transferences, involving a very large amount of resources, to be made with results advantageous to production."[3] In one special case, namely the establishment by law of a minimum standard of economic conditions, below which the fortunes of no citizen shall be allowed to fall, Professor Pigou favours the making of whatever transfers may be necessary, even though, as a result, production should be less than it would otherwise have been,[4] and he favours the gradual raising of this "National Minimum," as the productive power of the community rises.[5]

In general, he anticipates less benefit from schemes for the direct raising of wages, than from schemes for the taxation of the rich, coupled with wise public expenditure on social reform. It is no argument against such taxation that it checks saving by the rich,[6] for the rate of interest obtainable by society from investments in human beings is higher than the rate obtainable from investments in material capital. In other words, the marginal net

[1] *Ibid*, pp. 293–396. [2] *I*·· p. 294. [3] *Ibid*, p. 393.
[4] *Ibid*, p. 395. [5] *Ibid*, pp. 396–7.
[6] Though it is important, other things being equal, to choose those methods of taxation which check saving least. From this point of view, Professor Pigou approves the principle of Professor Rignano's proposal, considered above, for an inheritance tax, which shall be "progressive in time." (*Ibid*, pp. 376–7). Compare Part IV., Chapter IX. below.

product of resources wisely invested in persons is higher than that of resources wisely invested in material capital; a given sum wisely expended on the health and education of the people, and especially of the young, will increase production by a greater amount than the same sum wisely expended by private persons on the creation of new capital.[1] This idea, fundamental to a true understanding of public policy, is one of the most important in the book.

The final part of *Wealth and Welfare* deals with the distribution of income through time. This is a branch of the theory of distribution, with which Professor Pigou is the first to deal comprehensively, but which we may expect to see much developed in the future. Just as great inequality in the distribution of income among a number of persons at a given time is an evil, so is great inequality in the distribution of a given person's income through a period of time.[2] Inequality of this latter kind may be called, for the sake of greater distinctness, *variability*, and a given degree of variability of income is seen to be a greater evil, the smaller the income. Professor Pigou discusses the causes of the variability of working class incomes, such as trade fluctuations and the variability of general prices, and some of the methods by which variability of such incomes may be diminished, such as insurance against various economic misfortunes, the introduction of a more stable currency and private and State action designed to lessen the variability of the demand for labour.

This brief sketch of a very powerful book must here suffice.[3] It only remains to consider shortly two other

[1] *Ibid*, pp. 355–6 and 363–4. Compare Professor Cannan's argument (*Wealth*, p. 138) to the effect that the marginal net product of resources invested in research or in increasing knowledge, is higher than that of resources invested in material capital.

[2] *Ibid*, p. 401.

[3] An American economist has remarked to me that on his first

books by English and two by American writers, before bringing to a close our long historical study of the development of the theory of distribution. These books are Mr. Hobson's *Work and Wealth*, Professor Cannan's *Wealth*, Professor Ely's *Property and Contract*, all published in 1914, and Mr. H. E. Read's *Abolition of Inheritance*, published in 1918.

§4. *Work and Wealth* is, perhaps, Mr. Hobson's best book. It does not repeat those earlier "under consumption" theories, specially associated with his name, which have been already referred to. Instead, we find a comprehensive discussion of the distribution among persons, first, of the "human costs" involved in economic activities, and second, of the "human welfare" resulting from such activities. Both these distributions are closely connected with, but are much more complex than, the distribution of income.[1] On both, and especially on the first, Mr. Hobson writes much that is valuable and suggestive, but there is one great difficulty which necessarily obstructs him. For so ambitious an analysis passes far outside the limited range, within which man's dominant motives "enter easily into relation with the measuring rod of money,"[2] and as Marshall has pointed out, it is this "measuring rod," this "economist's balance, rough and imperfect as it is, that has made economics more exact than any other branch of social science."[3]

Many of Mr. Hobson's results, therefore, necessarily lack the scientific precision attainable in certain branches

reading of *Wealth and Welfare*, he "gasped to see Pigou going through brick walls," and advancing economic analysis at points where no further advance had seemed possible.

[1] The two distributions discussed by Mr. Hobson are, in fact, the distribution (1) of the negative and (2) of the positive elements of welfare, both economic and non-economic, which arise out of economic activities.

[2] Pigou, *Wealth and Welfare*, p. 3. [3] *Principles*, p. 14.

of economic theory. This, however, is not his fault; it is inherent in the subject-matter of his book, much of which lies on that dim borderland between the social sciences, where economics is in contact with psychology, with physiology, and with applied ethics. To light up that borderland more brightly will be a slow and difficult, but also an exceedingly important, task.

§5. One common reflection is suggested by Mr. Hobson's *Work and Wealth* and by Professor Pigou's *Wealth and Welfare.* Both these writers have advanced boldly into new and difficult country, but both have left unsettled questions upon their flanks. These are the same questions which, as we have seen, were ignored by an earlier generation of economists, obsessed with the study of wages per head, profits per cent., and rent per acre.

Professor Cannan, in his *Wealth,* deals very briefly with some of these neglected questions, such as the broad division of income between workers on the one hand and property owners on the other, and the causes of inequality of incomes from work and from property respectively. His reasoning on these subjects is only a slight elaboration of that of his article on the *Division of Income,* to which reference has already been made.[1] His brief treatment does little more than emphasise the fundamental importance of these questions. His book is an exposition, on somewhat novel lines, of some of the first principles of economics. But, though full of acute suggestion, it is an exposition of first principles only.

§6. Professor Ely, in his *Property and Contract in Relation to the Distribution of Wealth,* makes an examination of legal institutions the basis of his theory of dis-

[1] Commenting, in a review of this book, upon the emphasis laid by Professor Cannan upon inheritance, Professor Ashley remarks that "one could read through many a bulky volume on the Principles of Economics, without realising that rich men's sons have an advantage over poor men's sons in the pursuit of Wealth." *Economic Journal,* 1914, p. 249.

tribution. This book illustrates the value, emphasised by Professor Foxwell, in a passage already quoted, of combining economic with legal studies. Professor Ely discusses very carefully the meaning of property, its various existing forms and their relation to distribution. He regards "modifications in the treatment of gifts and inheritances" as "one of the great world movements of the age which attracts inadequate attention at the present time. We not only have the taxation of gifts and inheritances, but we have a regulation apart from taxation. . . It is curious that there is so little discussion of it, especially as there is a great deal of action in the matter."[1] He deals at some length with the regulation of inheritance, drawing many interesting contrasts between the laws of different countries.[2] But his positive proposals are here less definite than those contained in his earlier article, which has been referred to above. Professor Ely tells us that he began his serious study of economics in Germany and German influence is evident throughout his book. He shows a greater familiarity with the writings of German than of English economists and naturally bases much of his argument upon American facts and in particular upon American legal decisions. The latter, owing to the constitutional differences between the two countries, are a more fruitful field of research, as regards property, than English decisions would be.[3] But his book is full of information and suggestion for

[1] *Op. cit.*, I., pp. 394–5. [2] *Ibid*, pp. 415 ff.

[3] In England, the House of Commons can pass any Bill it pleases, and if the Bill becomes an Act of Parliament, no English Court of Law can declare it unconstitutional. In the United States, on the other hand, any Act passed by the Federal or by a State Legislature is liable to have its validity challenged in the Courts, and to be declared legally void, as contrary to the Federal or State Constitutions. Since these Constitutions contain various provisions, which limit the power of the legislatures to change the law of property, it is obvious that American legal decisions in this field have an importance which English decisions lack.

the English student, and approaches the theory of distribution from a point of view, which is still so rare as to be remarkable.

§7. Even rarer and more remarkable is any book, which is devoted entirely to inheritance in its economic aspects. For this reason, if for no other, some mention must be made of Mr. Read's *Abolition of Inheritance*. This book has a dramatic propagandist quality and a strong flavour of the style and method of Henry George. It opens thus: "Marshall Field died in 1906. His immense fortune, estimated at one hundred and twenty-five million dollars, passed into the hands of trustees for his grandsons, then twelve and ten years old respectively, to be held by them, on account of their incapacity, until they should become fifty years old. The public was suddenly shaken from what Milton calls 'the secure falsity of an old opinion,' viz., that great fortunes are quickly dissolved in the hands of heirs and, therefore, not dangerous."[1] This will, according to Mr. Read, was the cause of great discussion in the American press and of President Roosevelt's message to Congress in December, 1907, advocating a graduated Federal inheritance tax.

Mr. Read's practical proposal is that existing "inheritance taxes shall be increased until they absorb all the wealth that passes by descent, with exceptions in favour of widows' rights of dower and reasonable sums for the care and education of invalids and minor children."[2] In a later passage, "minor children" are defined as those under twenty-five years of age, and a further concession is made by which "inheritances of reasonable size" should not be "affected for the present." For a "reasonable size" is suggested a maximum of a hundred thousand

[1] *Op. cit.*, p. ix.

[2] *Ibid*, p. xvii. In the United States, though not in England, a widow's right to "dower" and a widower's to "curtesy" have been maintained.

dollars capital, yielding an income of four thousand dollars a year, "the sum to be gradually reduced on a sliding scale, as the minds of men become more and more capable of understanding the principles of that exact justice that will be attained, when inheritances are abolished altogether." Even were the maximum fixed at a million dollars, Mr. Read considers that valuable results would follow.[1] He supports his interesting proposal by arguments of very poor quality, such as an analogy between inherited wealth and hereditary monarchy, and the natural right of the worker "to what he produces." But he classes him who saves as a worker, and distinguishes "earned capital" from inherited wealth. He nowhere, however, faces the only really serious adverse argument, namely, that the effects of his proposal upon work and saving, and hence upon production, might be disastrous. And, although he believes that "to-morrow, when privilege," *i.e.*, inheritance, "shall be wiped out for ever, every worker shall have luxury," since "the earth is overflowing with abundance,"[2] he tells us elsewhere that "the theory that wages tend to the margin of subsistence . . . is an accepted doctrine of political economy." As evidence of such acceptance (in 1918 !) he gives references to Adam Smith, Mill, and Henry George.[3]

It is to be feared that, like the apostle Paul, this book is "born out of due time." One wishes it could have been written fifty years ago, when it might have done more to direct public attention to the question of inherited wealth, than it is likely to do now, for its philosophy of natural rights would then have been less out of fashion, and some of its logical errors less glaring. But the account given by the author in one of his Appendices

[1] *Ibid*, pp. 257-261.
[2] *Ibid*, p. 211.
[3] *Ibid*, p. xix.

of the development of inheritance taxes, both State and Federal, in the United States during the last few years, shows how fast facts, if not systematic thought, are marching towards the greater regulation of inherited wealth.

PART III

The Division of Income between Categories.

PART III

CHAPTER I

ABSOLUTE AND RELATIVE SHARES.

§1. In considering changes, and the cause of changes, in the shares of the total income of any community, which are received by various economic categories or by various persons, the distinction between absolute and relative shares is fundamental. This distinction between "portions" and "proportions"[1] is, of course, very obvious. No one, it might be supposed, would be likely to confuse an actual sum, whether of money or goods, with a mere fraction or percentage. But, in fact, economic thought, both ancient and modern, abounds with confusions on this point.[2]

A smaller relative share of a larger absolute sum may, or may not, be a smaller absolute sum. A quarter of £100 is greater than a third of £60, but less than a third of £90. Thus those who dispute whether or not "the rich are growing richer and the poor poorer" are often at cross purposes. For this assertion is sometimes intended to mean that the absolute share of the rich is increasing, and the absolute share of the poor diminishing, two independent propositions; sometimes that the relative share of the rich is increasing, and the relative share of the poor diminishing, a single proposition, if all members of the community are classified as either rich or poor;

[1] Compare Edgeworth, *Quarterly Journal of Economics*, 1904, p. 161.
[2] Compare, *e.g.*, Part II., Chapter VI., § 7, above.

sometimes that the inequality of personal incomes is increasing, which inequality may be defined and measured in a number of alternative ways.[1] This variety of meanings is sometimes even further extended by taking account of changes in the number of the rich or of the poor, and by comparing the share, whether absolute or relative, not of each class as a whole, but of an average member of each class. But these prolific ambiguities often pass undetected in popular discussion.

§2. Propositions concerning relative shares can often most easily, and sometimes can only, be obtained as deductions from other propositions concerning absolute shares. It is an arithmetical truism, but one which is often overlooked, that, if we know the size of a number of absolute shares, we can easily calculate the corresponding relative shares or percentages, whereas, if we only know the percentages, we have no means of calculating the absolute shares. Arguments from percentages alone are always, therefore, to be received with caution. In a certain Battalion, which served in the South African War, fifty per cent. of the teetotalers were taken ill before reaching the front, and the remaining fifty per cent. were invalided home, unwounded, after a few days' fighting. But these facts do not go far to prove that alcohol makes soldiers strong, for the teetotalers in that Battalion were only two in number.

Only a little less misleading are many other arguments based upon percentage changes in the value of the foreign trade of different countries, or in the total incomes of different groups or classes. An increase from two million pounds to four million pounds is an increase of a hundred per cent., while an increase from two thousand million pounds to three thousand million pounds is an increase

[1] Compare my forthcoming study on the *Measurement of the Inequality of Incomes.*

of only fifty per cent., but for most practical purposes the latter increase will be more significant than the former. But, provided that elementary confusions of mind are avoided, the causes determining the relative shares of various classes and persons in the total income of the community offer an interesting, though difficult and hitherto somewhat neglected, field of enquiry.[1]

[1] It is sometimes suggested that it is only absolute, and not relative, shares of total incomes, which are relevant to the economic welfare of individuals or social classes. For it is our own incomes that we spend, and not those of others, whatever the proportion between the one and the other may be. But to this suggestion three replies may be made. (1) Though absolute shares are the chief determinant of actual economic welfare, relative shares are one of the determinants of the potential economic welfare, which might be realised under a different scheme of distribution. Compare Part I., Chapter II. above. (2) Human psychology is such that the satisfaction, and hence the economic welfare, derived from an income depends, not only on the absolute size of this income, but also on its relative size as compared with other incomes. Compare Pigou, *Wealth and Welfare*, pp. 23–24, and Macgregor, *Evolution of Industry*, pp. 13–14. The ill-concealed chagrin, with which, while the general level of prices has been rising, certain members of the middle classes have seen their real incomes diminishing, not only absolutely, but relatively to those of many manual workers, is a further illustration. It is the relative, rather than the absolute, decline, which seems in many cases to cause the greater bitterness of spirit. (3) Relative shares are often, whether rightly or wrongly, made the subject of ethical judgments. Compare, for example, a correspondence in the *Economist*, Oct.–Nov., 1911, in the course of which it is argued by one writer that labour is entitled, on grounds of equity, to half the national dividend.

CHAPTER II

THE MEANING OF INCOME.

§1. As a preliminary to further discussion, it is necessary to consider shortly what precise meaning shall be attached to the word "income," which stands for the central idea of all that follows. The most appropriate definition of income will vary, according to the purpose for which the conception of income is to be used. But, assuming that none of the rival definitions involve either confusion of thought or too violent a breach with common usage, the choice between them turns, not upon principle or logic, but upon appropriateness and practical convenience.

In the subsequent argument, the main purpose of the conception of income is to facilitate comparisons between the economic welfare of different persons, or, more precisely, between the *means* of economic welfare available to different persons. Only persons have incomes, and for my present purpose only real persons, in the sense of human beings, and not "juridical persons," such as institutions or public authorities. For only real persons can attain to economic welfare.[1]

[1] Such statements as that of Mr. Ramsay Macdonald (*Socialism and Government*, I., p. 34) that "the State requires an income and this . . . is earned just as much as a personal income is earned," is an illegitimate personification of the State, which can only lead to confusion of thought. As regards institutions, Professor Cannan (*Wealth*, p. 156) says "the net yield of any non-commercial institution's endowments clearly comes under the ordinary conception of income. . . . If a hospital or school, for example, possesses land or Consols, the income is perfectly genuine income. It may be spent on nursing the sick or on teaching the young, but it will not be regarded as part of the income of those persons, so there is no 'double reckoning' in counting it as income of the institution." In my opinion, it *should*

The crudest and most popular conception of income is that it consists of money, "not necessarily coins, but either coin or some kind of written or printed order which enables" people "to receive coin if they want it."[1] But it is necessary to draw aside the veil, which the habitual use of money throws over most economic processes, and to consider not merely money but money's worth, not merely money income but real income, in the shape of those things which are bought with money income. For the purpose of my subsequent argument a person's real income during a given period should be so defined, as to correspond as closely as possible with the means of economic welfare which become available to him during this period. Any person's real income contains many heterogeneous elements, various sorts of food amd clothes, house room of varying quantity and quality, various personal services and so forth. In order, therefore, to compare the size of two or more real incomes, it is necessary to express all these elements in terms of some one common measure. The most obvious common measure is money value, which can in practice be used with approximate accuracy, corrections being made for variations, as between different times, places, and social

be "regarded as part of the income of those persons," for it is they, and not the imaginary personality of the institution, whose means of economic welfare are increased by nursing or teaching. Similarly a public authority's "income from property," such as the British Government's income from Suez Canal Shares, should strictly be regarded, it seems to me, not as the income of the public authority, but as the income of those persons to whom the public authority pays it over, whether or not such persons perform any services in return for the payments they receive. Again, a public authority's "income" from taxation, as will be argued later in this chapter, is only income transferred from taxpayers to beneficiaries of public expenditure, the public authority being merely a piece of machinery by means of which the transfer is effected. Professor Cannan, in Chapter VIII. of his *Wealth*, appears to be considering the question, who has the *control* of the income. I, on the other hand, am considering, who gets economic welfare from the enjoyment of the income.

[1] Cannan, *Wealth*. p. 140.

groups, in the purchasing power of money. We thus seem to return, in substance, to the original conception of money income. But it is important to notice that money income, as commonly conceived, is not equivalent to the money value of real income, as it is here convenient to define the latter. For, on the one hand, there are certain elements of money income, to which no elements of real income correspond; and, on the other hand, there are certain elements of real income, to which no elements of money income correspond.

§2 Let us begin by considering those elements of money income, to which no elements of real income correspond. In the first place, certain elements of "gross money income" are by common consent excluded even from "net money income" and it is evident that no elements of real income correspond to them. To any person these represent, roughly speaking, part of the money expenses of securing his money income. They are, of course, specially important in the case of traders, employers of labour and business men generally, and cover such things as cost of material, payments to employees, interest on borrowed capital and expenditure necessary to "maintain capital intact." The distinction between gross and net income is familiar and well established and may be accepted, for our present purpose, in its ordinary form.[1]

[1] The distinction is not, however, so simple as it may seem at first sight. For the difficulties inherent in the idea of a depreciation fund designed to "maintain capital intact" or "to maintain property unimpaired," see Cannan, *Wealth*, pp. 148–152, and Pigou, *Wealth and Welfare*, pp. 17–19. As regards income from work, two points may be noticed. In the first place, an analogy may be drawn between payments necessary to maintain the worker's efficiency and payments into a depreciation fund for capital. On the basis of this analogy it may be argued that only that part of a worker's income in excess of what is required to maintain efficiency should be regarded as his net income. This, in substance, is the view taken by Professor Loria, in *La Sintesi Economica*. But, for our present purpose, such a departure from ordinary usage is not justifiable, since our concern is with the worker's means of economic welfare, to which his net income in the

In the second place, taxes, though usually included in the income of the taxpayers, should, for our present purpose, be excluded. No elements of real income can usefully be said to correspond to those elements of money income, which the recipient is compelled to pay in taxation to public authorities.[1] Unless this principle is accepted, we cannot say, as it is eminently reasonable to say, that, when by a combination of taxation and public expenditure purchasing power is transferred from the rich to the poor, the inequality of incomes is, for the moment at any rate, doubly diminished, first by an increase in the incomes of the poor and second by a decrease in the incomes of the rich. It is sometimes said, in opposition to this principle, that, in return for the payments of individual taxpayers, public authorities provide various services, including the most important service of protecting the taxpayers in the enjoyment of their property and other civil rights. This idea was embedded, for instance, in Joseph Chamberlain's doctrine of ransom, which had a fleeting vogue in the politics of the early eighties, and it can almost be brought under the classifications of modern economic theory, if we suppose that a public

ordinary sense corresponds much more closely than does his net income in the sense indicated above. In the second place, as Professor Cannan points out (*Wealth*, p. 154), "though we allow for continuing expenses in the present, we seldom think of allowing anything for the original expenses of training the worker for his particular occupation." But this is because "workers are not brought up on commercial principles, like horses, with a view to the profits of owners. They are brought up and trained by their parents, by charities, and by the State, and it is only in rare instances that they are asked to repay any part of the cost." Here, again, for our present purpose, the ordinary usage is the most appropriate.

[1] Payments which are voluntary purchases of services rendered by public authorities, *e.g.*, postal services, are not taxes in this sense. For here the services are elements of real income to the purchasers. If, however, the purchase price includes an element of tax, the latter stands on the same footing as other taxes. The principle to be adopted here is clear, though its application will sometimes encounter practical difficulties.

authority has a monopoly of the supply of certain services and sets up an elaborate system of price discrimination as between different persons and classes. But this parallel breaks down by reason of the fact that public authorities differ from private monopolists in having a legal right to compel acceptance of their wares. In any case the idea is neither very helpful nor very realistic.[1] It is better frankly to exclude taxes from the income of taxpayers and to include benefits from public expenditure, in so far as they can be estimated, in the income of the beneficiaries. There are no doubt practical difficulties in the application of the principle that taxes, and especially indirect taxes, are not part of the income of the taxpayer, but these difficulties are small compared with the objections to including taxes in income

In the third place, gifts of money from A to B should, for our present purpose, be excluded from A's income and included in B's. For it is elements of real income to B and not to A, which correspond to these elements of money income. To A such gifts may bring satisfaction due to a sense of affection or generosity or of the discharge of a moral obligation, but it is to B and not to A that they bring purchasing power and hence the means of economic welfare.

§3. We may now consider those elements of real income to which no elements of money income correspond. In the first place, we have payments in kind under contracts of service, such as the board and lodging of domestic servants, or the rent-free dwellings sometimes supplied by employers for their workers. But such payments in kind are of continually diminishing importance relatively to payments in money. Money is the predominant medium of exchange. In the second place, we have certain elements of real income, which are

[1] Compare Nitti, *Scienza delle Finanze*, pp. 46–7.

obtained otherwise than by exchange. Four groups of these may be distinguished, (1) goods which men produce for themselves, services which they render to themselves and the benefits which they derive from the direct use of their own property, (2) goods and services, which they receive gratuitously from other persons or private institutions, and the benefits which they derive from the direct use of the property of such persons or institutions, (3) goods and services which they receive gratuitously from public authorities, and the benefits which they derive from the direct use of public property, (4) such free and unappropriated goods as they make use of.

Thus, under (1) we have, for example, that part of the produce of a farm, which the farmer himself consumes, the services which a doctor, by reason of his knowledge, can render to himself when he is ill, the benefits which a man derives from living in a house which is his own property, and from the use of his own clothes, furniture, books and other personal property.

Under (2) we have the services rendered without payment to one member of a family by another, notably to their husbands and children by the domestic work of women, the provision of food, clothing, etc., for young children by their parents, and all gifts in kind, including the benefits of hospitality. If we are considering the income of a family and not of the separate individuals composing it, most of the items in group (2) will be transferred to group (1).

Under (3) we have free education and any other goods or services gratuitously provided out of public expenditure, including all benefits derived from the use of public property, such as parks, highways, museums, etc.

Under (4) we have, for example, the benefits of air, sunlight and a good climate, and in certain cases free access to rivers and the sea, in which no property rights have been established by individuals or public authorities.

All the items included in these four classes form part of the means of economic welfare available to individuals, and are, therefore, for our present purpose, elements of their real income, though no elements of money income correspond to them. In ordinary usage, most of them are not counted as income, partly through lack of reflection, partly owing to practical difficulties in the way of estimating or valuing them, partly owing to their supposed small comparative importance and partly on the ground that they are common elements in all the incomes with which we are concerned.[1] It is reasonable to take account of them wherever possible, but it is pedantic to argue as though they were, under modern conditions, of the same importance as other elements more commonly regarded as income and more easily valued.[2]

§4. It is not usual to include inheritances in income, but there is a strong case for doing so, after deducting any taxation that may be payable in respect of their receipt. For a net inheritance is clearly an addition to the inheritor's means of economic welfare in the year in which it is received. Further, if, as has been argued above, gifts from the living are income to the recipient, there seems no good reason why inheritances, which are gifts from the dead, should not likewise be income. It has been

[1] But this last is not a good ground for ignoring them, if we are interested in the inequality of incomes. For equal additions to a number of unequal incomes reduce inequality Compare my forthcoming study on the *Measurement of the Inequality of Incomes*.

[2] Marshall (*Principles*, p. 72) observes that no services which a person " performs for himself are commonly reckoned as adding to his nominal income. But though it is best generally to neglect them when they are trivial, account should for consistency be taken of them, when they are of a kind which people commonly pay for having done for them," but " there is some inconsistency in omitting " from current conceptions of income " the heavy domestic work which is done by women and other members of the household, where no servants are kept " (*Ibid*, p. 79). Again, " from the social point of view income is regarded as including all the benefits which mankind derive at any time from their efforts in the present and in the past, to turn nature's resources to the best account." (*Ibid*, p. 76).

proposed to exclude inheritances from the income of the recipients, on the ground that "regularity" is an essential attribute of income, and that inheritances are irregular.[1] From some points of view this is reasonable enough, but for our present purpose the test of regularity is irrelevant. If an economist is paid for reviewing a book, or a barrister for conducting a case in court, once in his life, and once only, the payment is none the less income because it is a solitary payment. Similarly with the gratuities drawn by soldiers lucky enough to survive the recent war. A regular income implies regular additions to the recipient's means of economic welfare, and an irregular income implies irregular additions, but both are equally income, if we are interested in the recipient's means of economic welfare. On the other hand, the inclusion of inheritances in income is so considerable a breach with common usage, and the question of inherited wealth is given so prominent a place in the subsequent argument of this book, that the balance of convenience seems to favour the exclusion of inheritances, though not of course of the annual income derived from inherited property, from the category of income.

§5. It is interesting to compare the conception of income as developed in this chapter with the fiscal conception, which is adopted in assessments for income tax in this and other countries. It is not surprising that considerable differences should appear, since the purpose of the fiscal conception is to obtain revenue with the minimum of cost, trouble, and sense of injustice, whereas the purpose of our conception is to obtain an accurate comparison of the means of economic welfare available to different individuals during a given period of time.

For purposes of taxation, the distinction between gross

[1] Compare Cannan, *Wealth*, pp. 145–146, Seligman, *Income Tax*, p. 20, Loria, *La Sintesi Economica*, p. 41.

and net income is always admitted in principle.[1] Questions of detail, as to where the dividing line should be drawn, need not be entered into here. The principle that tax payments are not income is recognised in the American, though not in the British, income tax.[2] The principle that gifts are income to the recipient, but not to the giver, is reversed in the British Income Tax Law, chiefly no doubt on grounds of administrative convenience. If a father makes a voluntary allowance to his son, the father pays income tax upon the amount of the allowance, but the son does not.[3]

In this country, though not in America, income tax is levied on the annual value of houses occupied by their owners, but it is nowhere attempted to levy it on the annual value of such personal property as furniture, clothes, etc., though these are liable, at their capital value, to inheritance taxes in most countries. Income tax is not levied on that part of a man's income, which consists of goods produced by him for his own use, nor services performed by him for himself, nor of goods and services gratuitously supplied by public authorities, nor of free and unappropriated goods. Here again, administrative convenience, and the comparative smallness of items difficult to value, is a sufficient explanation.

Inheritances are not now subject to income tax either in this country or in America, but are subject to special inheritance taxes which may plausibly be regarded as

[1] "By income is always meant net income, as opposed to gross income." Seligman, *Income Tax*, p. 19.

[2] Seligman, *Economic Journal*, 1914, p. 64. But in England, though a man is taxed on his income tax, he is not, in principle at all events, rated on his local rates. For the rateable value of property is supposed to be based upon the rent which an occupier, who has also to pay the rates, would be willing to pay. Compare Cunynghame, *Geometrical Political Economy*, pp. 76–77.

[3] But, though a voluntary allowance is not income to the recipient for the purpose of paying income tax, it *is* income for the purpose of disqualifying him from an old age pension.

supplementary income taxes. It is interesting to notice that in America the proposed Federal Income Tax of 1894 treated both inheritances and gifts *inter vivos* as income to the recipient, while Professor Seligman suggests that the exemption of inheritances under the Federal Income Tax Law of 1913 was partly due to the expectation, since realised, "that the federal income tax may before long be supplemented by a federal inheritance tax."[1] As regards other irregular receipts, the mere fact of irregularity does not give exemption from taxation. For example, in this country it was necessary to exempt war gratuities from income tax by means of a special clause in the Finance Act of 1919.

[1] *Economic Journal*, 1914, p. 61.

CHAPTER III

The Sources of Income.

§1. In all modern societies the two chief sources of income are the performance of work[1] and the ownership of property. Within the category of work we may, for certain purposes, draw various broad distinctions, as, for example, between comparatively skilled and comparatively unskilled work, or between brain work and manual work, or between those who work on their own account, such as doctors, lawyers, artists, and employers of labour, and those who work under the supervision of another. It is possible, however, to reach certain general conclusions concerning the aggregate income from work, without taking account of the great differences which exist both in the nature of various kinds of work, and in the amount of income obtainable in various occupations.

Within the category of property, again, many economists, as we have seen, have drawn a sharp distinction between land and capital, that is to say, between those useful material objects which are provided by nature and those which are fashioned by man. But it has already been argued that in the traditional theory of distribution too much stress was laid upon this distinction. To speak of land, labour and capital as "three co-

[1] The word "work" is more comprehensive than the word "labour," and is, therefore, preferable from our present point of view. For in ordinary language only certain sorts of work, mainly manual work as distinguished from brain work, are spoken of as "labour," whereas it is important here to group together all incomes from work of every kind on the one side and all incomes from property of every kind on the other.

ordinate factors of production" is misleading. For land and capital are far more nearly akin to one another, as sources of income, than either is to labour.[1] As regards capital, a further distinction has been suggested by modern analysis. It has for some time been recognised by economists that interest on capital is primarily the price paid for what is sometimes called "waiting," that is to say the price paid in order to induce men to postpone part of their consumption, or, in other words, to save part of their incomes. But it has recently been pointed out that interest is paid in most cases, not only for "waiting," but also for "uncertainty-bearing," or, in other words, for the exposure of resources to the risk of total or partial loss.[2] Thus it is common knowledge that, in order to secure sufficient capital, an undertaking which is reputed to be risky must offer a higher rate of interest than one which is reputed to be safe.

Though sometimes associated with work, as, for instance, with the work of business men and inventors, uncertainty-bearing is in practice most often associated with waiting in the provision of capital. Analytically, however, it is quite distinct both from work and from waiting.[3] The conception of uncertainty-bearing is essential to a true understanding of certain economic problems, but here so ultimate an analysis of capital is not required. Nor, for the most part, will it be necessary to distinguish capital from land. We can reach general conclusions concerning the aggregate income from property similar to those concerning the aggregate income from work.

[1] "Organisation," again, which has sometimes been treated as a fourth main factor of production, is simply a special kind of work.

[2] "Uncertainty-bearing" is a clumsy, though precise, word, and "risk-taking" is only a trifle better. "Enterprise" is a better word than either, but it is commonly used in a restricted sense, and it is doubtful whether it is worth while attempting to broaden this well-established meaning.

[3] See Pigou, *Wealth and Welfare*, pp. 95–103. Compare also Withers, *Poverty and Waste*, pp. 55–60.

Work and property are the two great categories upon which, in approaching the problem of distribution, we should concentrate our attention. For, apart from the contrast between large incomes and small, the greatest contrast, alike for the economist and for the man in the street, is between "earners" and "owners," or, in other words, between those incomes which necessitate the activity, and those which permit of the idleness, of their recipients.

It is unnecessary here to attempt any precise definition, or to enter upon any elaborate enquiry into the nature, of property; for the details of these matters pertain to jurisprudence rather than to economics.[1]

§2 In addition to work and property, there are in modern communities two other important sources of income, namely, private gifts and civil rights. Both of these deserve more attention than economists have hitherto given to them.

Private gifts include all voluntary transfers of resources which are made by private individuals "without consideration," as lawyers say, or, in other words, all genuine *gifts*, as distinguished from resources given and received by way of exchange. The category of income from private gifts includes, therefore, everything received by way of private charity, and all gifts *inter vivos*, whether from relatives or friends.

The category of income from civil rights has in recent years rapidly increased in importance, though it has existed in England at least as long as the Poor Law, which conferred on destitute persons the civil right to maintenance at the public expense.[2] The exiguous

[1] They are excellently discussed in Mr. Salmond's *Jurisprudence*. pp. 385–419 and in Professor Ely's *Property and Contract in Relation to the Distribution of Wealth*. Compare also Bentham, *Theory of Legislation*, pp. 112–113.

[2] In some countries, Holland for example, and until recently France, there is no Poor Law, the relief of destitution being left entirely to

income which, in the form of poor relief, keeps the pauper from starvation, is not derived from work.[1] from property or from private gifts; it is derived from a civil right, created by the famous statute of the fifth year of Elizabeth.

In the same category, on grounds of principle, is income received under various other statutes, such as the Fatal Accidents, Employers' Liability, Workmen's Compensation, Education, Old Age Pensions and National Insurance Acts. For all these statutes confer upon various classes of citizens the civil right to receive income, in money or in kind, in specified circumstances. War pensions to disabled soldiers and sailors or to their widows and dependents are likewise income from civil rights, and so, perhaps, are the perpetual pensions which are still being paid to successive Lords Rodney and Nelson, whose remote ancestors rendered conspicuous naval services.[2] It has in the past been the policy of English law, by disfranchisement and other means, to attach a "pauper taint" to the civil right to poor relief. But no such taint is attached, either by law or opinion, to the receipt of income from other civil rights.

private charity. See the Poor Law Commissioners' Report (1910) on *Foreign and Colonial Systems of Poor Relief* (cd. 5441).

[1] The existence of the so-called "labour test" for the able-bodied does not seriously qualify this statement.

[2] These perpetual pensions, which with the lapse of generations had become a public scandal, were greatly diminished in number by the Parliamentary zeal of Bradlaugh in the eighties. Particulars of the few which still remain may be found in the annual *Finance Accounts*. As regards the general classification of incomes, we may notice here that pensions, which are in the nature of deferred pay for work done by the actual recipients, as distinguished from their parents or remoter ancestors, are, of course, to be regarded as income from work. The pensions of civil servants, teachers, and many other classes of workers, are of this kind, many workers being compelled by their contract of service to contribute out of their earnings to Superannuation Funds. It is arguable, though not I think conclusively, that war pensions to the disabled are also of this kind. The terms of these pensions formed no part of the contract of service of volunteers, much less of conscripts, and their amounts vary with the degree of disablement, and not with length of service or with any other such criterion of work done.

§3. The boundaries of the category of income from civil rights are not, in practice, sharply defined. Civil rights which are income-yielding shade imperceptibly into those which are not, and income from civil rights shades imperceptibly into income from work on the one hand and into income from property on the other.

Whether or not a particular civil right is income-yielding obviously depends upon the precise definition of income which we adopt. The right to an old age pension is clearly income-yielding; so is the right of a child attending an elementary school to a free meal, when these are being provided by the Education Authority; so, hardly less obviously, is the right of a child to free education itself.[1] On the other hand, the right to walk unmolested down a public street would not generally be considered income-yielding,[2] though the right of access to a public park might be.

Again, income from civil rights shades imperceptibly into income from work. For example, it seems reasonable to regard payments under the Workmen's Compensation Act to injured workmen or their dependents as income from civil rights. But such income, at any rate when accruing to the injured workman himself, is closely akin to income from work. For the Workmen's Compensation Act, in effect, makes it an implied term of all contracts of employment, which fall within its scope, that an employer shall compensate a worker or his dependents for accidents of various kinds. It may, therefore, be argued with some plausibility that all compensation paid under this Act is paid under the worker's contract of employment and is, therefore, income

[1] Though it may be argued that the process of education yields deferred, rather than immediate, real income to those who are educated.

[2] Such civil rights under the English, though not under most foreign systems of law are guaranteed negatively, by penalising interference with them, rather than positively. Compare Dicey, *Law of the Constitution*, pp. 191 ff.

from work. Similar reasoning might be used to show that benefits paid under the National Insurance Act, in so far as these are paid for out of the employers' and the workers' contributions, and not out of the State's, are income from work.

Again, income from civil rights shades imperceptibly into income from property. It is easy to define "property" so widely, as to include all income from civil rights within the category of income from property. There is much to be said for so wide a definition from the point of view of the jurist,[1] but little from that of the economist. Assuming then that income from civil rights is not to be swallowed up in income from property, various tests suggest themselves for distinguishing between the two. No single test is perfectly satisfactory, but on the whole that of transferability seems the best. Broadly speaking, property rights are transferable, while civil rights, in our present sense, are not. Thus, generally speaking, interests in land, stocks and shares, patents and copyrights may be bought and sold, or freely given by one person to another. But an old age pensioner cannot sell his right to a pension, nor the wife of an insured worker her right to maternity benefit. The statutes creating these civil rights have, indeed, expressly made them non-transferable.[2] This quality of non-transferability is also attached by law to various civil rights which are not income-yielding. Thus a man cannot sell himself into slavery, that is to say he cannot sell his right to freedom of contract, nor can he sell his

[1] Compare Salmond, *Jurisprudence*, pp. 385 ff.

[2] Section 6 of the Old Age Pensions Act, 1908, provides that "every assignment or charge on, and every agreement to assign or charge, an old age pension under this Act shall be void, and on the bankruptcy of a person entitled to an old age pension the pension shall not pass to any trustee or other person acting on behalf of the creditors." Section 111 of the National Insurance Act, 1911, makes a similar provision concerning "any of the benefits conferred by this Act."

right to vote at elections, nor his right of access to the courts of law,[1] to one who has not those rights. Continuity between those civil rights which are income-yielding and those which are not is, to this extent, established.

Another way of putting the matter is to say that the civil rights which we have been considering are purely personal rights, and relate to the "status," while proprietary rights relate to the "estate," of particular individuals. A man may transfer his estate to another, but not his status.[2]

§4. Having shown that the category of income from civil rights is not sharply divided from other categories of income, we should next observe that, in an ultimate analysis, *all income* of whatever kind may be said to be derived from civil rights. For it is only because society protects men in the enjoyment of their legal rights that any income at all can be securely derived either from work or property, or that private gifts can take effect. In particular, all property rights are, from this point of view, merely civil rights, which may be, and continually are, restricted and modified by legislation.

[1] A general right of access to the Courts is unassignable, but particular causes of action are, in certain cases and subject to certain conditions, assignable. But this brings us to the verge of a detailed discussion of legal rules, which would be inappropriate here.

[2] The distinction between status and estate is well expounded by Mr. Salmond (*Jurisprudence*, pp. 208–212), but he would include in a man's estate all rights which are of any economic value. He does not, however, expressly deal with any of those income-yielding civil rights which are here under discussion. If these had not apparently escaped his attention, they might have modified his classification. The test of transferability is subject, however, to exceptions. Some income from property is not transferable, the most striking instance being the income, under a settlement, of a married woman "restrained from anticipation." Certain incomes from work are also unassignable, such as a soldier's pay (Anson, *Law of the Constitution*, Vol. II., Part II., p. 185) and the salaries and pensions of public officers, *e.g.*, judges (Odgers, *Common Law*, p. 775). All military pensions are made unassignable by Section 141 of the Army Act, 1881.

For our present purpose, however, a less ultimate analysis is more useful, and the category of income from civil rights stands out sufficiently clearly in the light of the preceding discussion.

CHAPTER IV

Aggregate Income from Civil Rights and from Private Gifts.

§1. In this chapter we shall consider briefly the causes which determine in any community the aggregate income from private gifts and from civil rights respectively, and the causes which determine the size of these aggregates relatively to the aggregate income of the community from all sources.

The aggregate income from private gifts will be widely different, according as we regard individuals or families as income-receivers. For in the former case all the purchasing power, which one member of a family derives from work, property or civil rights, and transfers to, or devotes to the benefit of, other members, will be income from private gifts to those other members, while in the latter case it will be income to the family from work, property or civil rights, as the case may be. It seems more convenient here to regard the family, and not the individual, as the income-receiver, and this leads us to adopt the lower estimate of aggregate income from private gifts.

§2. The absolute amounts of the aggregate income from private gifts and from civil rights depend primarily on public opinion operating, as regards private gifts, chiefly through individual action and, as regards civil rights, through collective action by way of legislation. They depend, secondarily, upon the absolute amount of the aggregate income from all sources, and, incidentally,

upon the effects on production of the transfers of income involved in various private gifts and civil rights.

Private gifts may be divided into three classes, (1) substantial gifts *inter vivos*, (2) small gifts of a charitable character, (3) small gifts not of a charitable character.[1] The distinction between (2) and (3) is not clear cut, but is pretty obvious in practice. Small gifts, which are not charitable, are largely reciprocal. A pays for B's dinner one day; B pays for A's another. Small gifts which are not charitable thus largely cancel one another. as between different persons. They are not of great quantitative importance, and produce very small indirect effects upon production. We may therefore ignore them, and restrict our attention to substantial gifts *inter vivos*, and to small gifts by way of charity.

Apart from changes in law and opinion, an increase in aggregate income from all sources will probably lead to an increase in substantial gifts *inter vivos* and may or may not lead to an increase in charity. For on the one hand people will think, when their incomes increase, that they can afford to be more charitable, while on the other hand it will be thought that there is less need for charity, when the incomes of those who would be the recipients of charity increase also.

Changes in the law of inheritance may increase the amount of substantial gifts *inter vivos*.[2] Changes in law and opinion will also affect the amount of private charity. As the aggregate income of the community increases. the standard of poverty, in terms of income, is likely to rise,

[1] Professor Pigou points out (*Wealth and Welfare*, pp. 385–388) that some benefits obtained under schemes of mutual insurance are analytically equivalent to "income obtained from the gift of a friend." From our present point of view, however, such benefits are best regarded as income from property, except in so far as the benefits are paid from a state subsidy to insurance, in which case they are income from civil rights.

[2] Compare Part IV., Ch. IX. § 9 below.

and, independently, the sense of social obligation towards the less fortunate members of the community may become keener. Both these factors will make for an increase in private charity. On the other hand, changes in law, by which the State takes over functions previously left to private charity, will tend to " dry up the springs " of private charity, and hence to diminish its amount. In such cases income from civil rights will be substituted for income from private gifts. The reaction upon production of the receipt of income from private charity is most conveniently considered along with the reaction of the receipt of income from civil rights at the end of the present chapter.

§3. Income from civil rights, as defined in the last chapter, is a miscellaneous category. It includes, as we have seen, " relief " under the Poor Law, and the benefits provided under a number of statutes, mostly of recent origin and difficult to classify in any very instructive fashion. Aggregate income from civil rights depends primarily, as we have seen, on public opinion expressing itself through legislation. During the past twenty years in this country the Old Age Pensions and National Insurance Acts, together with amendments widening the scope of the Workmen's Compensation Act, the Education Act, and other measures, and finally War Pensions, though the total of the latter will gradually diminish, have rapidly increased this aggregate, and it is likely that the increase will continue in the future. Various far-reaching and interesting schemes have been proposed, the adoption of which would strongly stimulate this increase.[1] Professor Macgregor estimated in 1911 that " supports to wages," in the form of working-class income from private charity and from " national services in favour of the working classes," amounted to at least

[1] Compare Part IV., Ch. II. below.

15% of the annual wages bill.[1] This estimate was made before the passing of the National Insurance Act and before the additions made by the war to Pensions. It was also made at a time when the value of money was considerably greater than it is now. It is important to notice that most income from civil rights under modern statutes is fixed in terms of money. In so far as this is so, a fall in the value of money diminishes the real income from such rights, and a rise in the value of money increases it.

§4. The size of the aggregate income from private gifts and from civil rights, relatively to the aggregate income from all sources, depends in part upon the reactions on production caused by the transfers involved in private gifts and income-bearing civil rights, and these reactions may in turn influence the absolute size of the aggregate income from private gifts and civil rights. The type of question which presents itself in this connection is the following : What effects will be produced, in various circumstances, by a transfer of resources from A to B, and by the expectation that such transfers will be repeated in the future, upon the willingness and upon the ability of A and B respectively, to work and save ? Such questions cannot be fully discussed here.[2] But income from civil rights or private gifts which contributes effectively to the intelligence, health, and efficiency of the recipients will generally react favourably on production. In these respects, for example, public expenditure on education and on insurance against sickness and unemployment stands on a different and better footing than expenditure on old age or disablement pensions, desirable though the latter may be. On the other hand it has been argued that the effect of such legislation as the Workmen's

[1] *Evolution of Industry*, p. 136.

[2] Compare, for a full and interesting discussion of them, Pigou, *Wealth and Welfare*, Part III., Chapters VIII.–XII.

Compensation Act and the National Insurance Act has been, from the point of view of employers, to diminish the number of employable persons in the community. Such possible effects of legislation intended to be " beneficent " must not be overlooked.

CHAPTER V

The Division of Income Between a Number of Factors of Production.

§1. We have seen that the absolute and relative sizes of the aggregate income from civil rights and from private gifts are mainly determined by collective action, through legislation or otherwise, and by altruistic individual action. In neither case do economic forces in the ordinary sense, that is to say the pursuit by individuals of the economic interests of themselves and their families, play any large part.

We may now go on to consider that division of the aggregate income of any community, which is produced by economic forces in this sense. We may begin by considering in an abstract form in this chapter the general case of the division of the income created by the joint action of a number of factors of production. What are the causes which determine the absolute and relative shares of the total product accruing to such factors? We shall then consider in the five following chapters certain particular cases, which are included in this general case. In this group of chapters it will be convenient to ignore the fact that part of the income accruing to factors of production may be transferred from one person to another in the form of income from private gifts and to ignore also, except where the contrary is stated, transfers brought about by means of taxation and public expenditure.

We may assume, provisionally, that, in the ordinary type of the modern capitalist system, the payment of each factor of production tends to be equal to its marginal net product and that the marginal net product of any

factor tends to be the same in all employments.[1] In a stationary state, where the conditions of demand and supply always remained the same for all factors, the absolute and relative shares of all factors would always remain the same. The absolute share of any factor would be equal to the number of units of that factor in employment multiplied by the marginal net product of any unit. The relative share of any factor would be equal to the proportion of this absolute share to the total product.

In reality, in a non-stationary state, changes take place in the various conditions of demand and supply, and hence in the absolute and relative shares of various factors. The changes in these shares depend upon two sets of causes. They depend, in the first place, upon the various elasticities of demand and supply, or in other words, on the shapes of the various demand and supply curves. And they depend, in the second place, upon the way in which a movement of any one of these curves causes movements of the other curves.

§2. The effects upon the share of any factor of a small increase in its supply have been expressed by Professor Pigou in two general propositions.[2] The first is that the absolute share of any factor increases or diminishes, as a result of a small increase in its supply, according as its

[1] We may also notice an application of what mathematicians know as Euler's Theorem to the theory of distribution between factors. This application was first made by Mr. Wicksteed in his *Essay on the Co-ordination of the Laws of Distribution*, who pointed out that, if the product of a number of factors, expressed as a function of their amounts, is a homogeneous function of the first degree, then the payment of each factor according to its marginal net product exactly absorbs the product. Compare Flux, *Economic Principles*, pp. 314–5 and Edgeworth, *Quarterly Journal of Economics*, Vol. 18, p. 182. But what happens if, as is very much more probable, the product is not a function of this narrowly limited type? This is a fine point in the marginal productivity theory, which none of its exponents seem yet to have satisfactorily explained.

[2] *Wealth and Welfare*, pp. 92–93 (footnote).

elasticity of demand is greater or less than one; the second is that its relative share increases or diminishes in like circumstances, according as its elasticity of demand is greater or less than the reciprocal of the relative share, before the increase, of all other factors taken together.[1]

The significance of the second proposition can be made clearer by a numerical example. Consider the effect upon the relative share of capital of a small increase in its supply. Suppose that, before this increase, capital's relative share was one-third of the whole. Then the relative share of all other factors taken together must have been two-thirds of the whole. The reciprocal of two-thirds is three-halves, that is to say, one and a half. The relative share of capital will, therefore, increase or diminish, according as the elasticity of demand for capital is greater or less than one and a half.

Combining the two propositions set out above, we see that the effect of a small increase in the supply of any

[1] If x is the number of units of the factor, and y its marginal net product, its absolute share is xy. If, when x increases by δx, y decreases by δy, its elasticity of demand $= \frac{y\delta x}{x\delta y}$ and its absolute share becomes $(x+\delta x)(y-\delta y)$, or $xy+y\delta x - x\delta y$, if δx and δy are small. Therefore its absolute share increases or diminishes according as $y\delta x >$ or $< x\delta y$, that is to say according as the elasticity of demand is greater or less than one. The relative share of the factor is $\frac{xf'(x)}{f(x)}$, where $f(x)$ is the total product and $f'(x) = y$. This relative share increases, when x increases, if $\frac{1}{f(x)}\{f'(x) + xf''(x)\} - xf'(x)\frac{f'(x)}{\{f(x)\}^2} > 0$, that is to say, since e, the elasticity of demand, $= -\frac{f'(x)}{xf''(x)}$, if $e > \frac{1}{1 - \frac{xf'(x)}{f(x)}}$, that is to say if the elasticity of demand is greater than the reciprocal of the relative share of all other factors taken together. Professor Pigou, owing to a misprint, (*ibid.* p. 92 n.) equates e to $-\frac{f'(x)}{f''(x)}$ instead of to $-\frac{f'(x)}{xf''(x)}$. These two propositions both assume that, as a result of the increased supply, no change takes place in the demand curve of the factor in qnestion.

factor will be (1) to diminish both its absolute and relative shares, if its elasticity of demand is less than one, (2) to increase its absolute, but to diminish its relative, share, if its elasticity of demand is greater than one, but less than the reciprocal of the relative share of all other factors taken together, (3) to increase both its absolute and its relative shares, if its elasticity of demand is greater than the reciprocal of the relative share of all other factors taken together. And, further, the increase, if any, in its share, whether absolute or relative, will be greater, the greater the elasticity of demand.

The effect of a small increase in the demand for any factor, on the other hand, will be to increase its absolute share, except in the very unlikely event of its elasticity of supply being negative and less than minus one.[1] We may assume that, in practice, the elasticity of supply of any factor will be positive, or in a few cases zero.[2] On this assumption the relative share of any factor will also always be increased by a small increase in demand.[3] And further, the increase in its share, whether absolute or relative, will be greater, the greater the elasticity of supply.

§3. It is only, however, when changes in supply are small that the preceding propositions hold good. If the

[1] That is to say, that its supply contracts as its supply price increases, and that the proportionate contraction is greater than the proportionate increase in price.

[2] The most plausible hypothesis of a negative elasticity of supply of any factor is that, in certain circumstances, the amount of saving might increase as the rate of interest fell. Compare Marshall, *Principles*, pp. 234–5.

[3] The condition that a small increase in the supply of a factor may increase that factor's relative share, may be applied, *mutatis mutandis*. Here e, the elasticity of supply, will be equal to $\frac{f'(x)}{xf''(x)}$ and not to $-\frac{f'(x)}{xf''(x)}$. The condition, therefore, becomes $e > \frac{1}{\frac{xf'(x)}{f(x)} - 1}$ and the right hand side of this inequality is obviously a negative quantity.

supply of any factor increases by a moderate amount, and we assume that its conditions of demand are unchanged, the minimum elasticity of demand which will ensure an increase in its absolute share is not one, as in the case of a small increase, but one plus the proportionate increase in its amount.[1] Thus if the proportionate increase in the supply of the factor is twenty per cent., or one fifth, the minimum elasticity of demand that will ensure an increase in the absolute share of the factor will be one and a fifth. Similarly, the minimum elasticity of demand which will ensure an increase in its relative share is not the reciprocal of the relative share, before the increase, of all other factors taken together, but another quantity, for which no very simple verbal expression can be found.[2]

As regards changes in the demand for any factor, there is no need to distinguish between moderate and

[1] As in the case of a small increase, the absolute share increases from xy to $(x + \delta x)\ (y - \delta y)$. But, when the increase is of moderate size, the product of δx and δy cannot be neglected. The condition that a moderate increase in supply shall lead to an increased absolute share is, therefore, $y\,\delta x - x\,\delta y - \delta y\ \delta x > 0$, or, since e, the elasticity of demand, $= \dfrac{y\,\delta x}{x\,\delta y}$, $e > 1 + \dfrac{\delta x}{x}$. Professor Pigou, (*Wealth and Welfare*, p. 92) argues as though the formula appropriate to a small increase in the supply of a factor was equally appropriate to a moderate increase. But this is not so. Compare the Note at the end of this chapter.

[2] The condition that the relative share should increase is $\dfrac{(x + \delta x)\ (y - \delta y)}{P + \delta P} > \dfrac{xy}{P}$, where P is the total product. Putting $\dfrac{\delta P}{\delta x} = \theta y$, where $0 < \theta < 1$, and $e = \dfrac{y\,\delta x}{x\,\delta y}$, this becomes

$$e > \frac{1 + \dfrac{\delta x}{x}}{1 - \dfrac{\theta xy}{P}}$$ which is evidently greater than $1 + \dfrac{\delta x}{x}$, but less than

$$\frac{1 + \dfrac{\delta x}{x}}{1 - \dfrac{xy}{P}}$$

small changes. Assuming that the elasticity of supply is not negative, the effect of an increase of demand, whether moderate or small, will be to increase both the absolute and relative shares of the factor, and, the amount of the increase in demand being given, to increase these shares the more, the greater the elasticity of supply.

§4. It remains to consider the nature of the movements liable to be set up in any of the other curves of demand and supply by an originating movement in any one of them.

A factor A may be said to be complementary to another factor B, if an increased supply of A causes an increased demand for B, or, more precisely, if a downward movement of the supply curve of A causes an upward movement of the demand curve of B. Similarly A may be said to be rival to B, if an increased supply of A causes a decreased demand for B, *i.e.*, if a downward movement of the supply curve of A causes a downward movement of the demand curve of B.[1]

Since an increase in the supply of any factor, other things being equal, must increase the total product, and hence the total demand for all factors taken together, it follows that every factor must be complementary to all factors taken together, including itself, though it may be

[1] If A is complementary (or rival) to B in this sense, it may generally be assumed that B is likewise complementary (or rival) to A. But, where the elasticity of supply of either A or B is zero, the relation obviously cannot be bilateral. Again, if A and B are complementary (or rival) in this sense, they will probably also be complementary (or rival) in the sense that an increased demand for A causes an increased (or decreased) demand for B. For the effects of a downward movement of the supply curve of A and of an upward movement of the demand curve of A are to this extent the same that, other things being equal, an increased quantity of A is employed. But, whereas an increased supply of A necessarily involves, other things being equal, an increased total product, an increased demand for A may involve only a change in taste or fashion, and no increase in total product. Generally speaking, every factor will be complementary to itself, an increased supply of it causing an increased demand for it.

rival to particular factors taken separately.[2]

An elaborate mathematical treatment of changes in the demand and supply of a group of factors, some pairs of which were complementary and others rival, would, perhaps, yield new and interesting results. No such treatment, however, will be attempted here. It must suffice to point out that the situation of any factor is likely to be improved, both absolutely and relatively, by an increased supply of complementary, and a decreased supply of rival, factors.

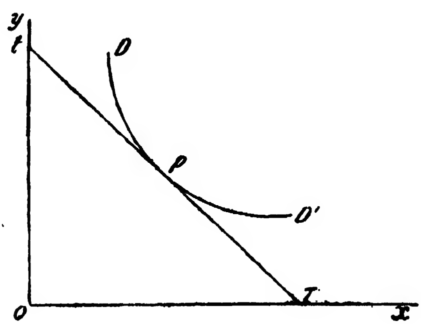
§6. In order to apply to practice the abstract argument of this chapter, it is necessary to have some knowledge of the elasticities of demand and supply of different factors, and the extent to which the latter are complementary or rival to one another. But it should be noticed that the question of the magnitude of various elasticities and the question whether various factors are complementary or rival to one another, though it is possible to discuss them separately, are logically interdependent. For the elasticity of demand for one factor is affected by the elasticity of supply of another, and affected differently according as the two factors are complementary or rival.

If A is complementary to B, then, other things being equal, the greater the elasticity of supply of A, the greater is the elasticity of demand for B; but, if A is rival to B, the greater the elasticity of supply of A, the smaller the elasticity of demand for B.

[2] Compare Marshall (*Principles*, p. 665). "The various agents of production . . . on the one hand are often rivals for employment; any one that is more efficient than another in proportion to its cost tending to be substituted for it, and thus limiting the demand price for the other. And on the other hand they all constitute the field of employment for each other; there is no field of employment for any one, except in so far as it is provided by the others; the national dividend which is the joint product of all, and which increases with the supply of each one of them, is also the sole source of demand for each of them."

NOTE ON THE CONCEPTION OF ELASTICITY OF DEMAND AND SUPPLY.

§1. The statements of modern economists regarding elasticities of demand or supply sometimes contain an ambiguity, which it is the purpose of this Note to examine. This ambiguity is liable to arise, whenever it is attempted to apply the methods of the differential calculus to problems of demand or supply. In Marshall's *Principles*, elasticity of demand is defined as follows (p. 102) : " We may say generally : the elasticity of demand in a market is great or small according as the amount demanded increases much or little for a given fall in price." This conception is then developed in a footnote, with the aid of a diagram, as follows : " Speaking more exactly we may say that the elasticity of demand is one, if a fall of one per cent. in price will make an increase of one per cent. in the amount demanded ; that it is two or a half, if a fall of one per cent. in price makes an increase of two or one-half per cent. respectively in the amount demanded. The elasticity of demand can be best traced in the demand curve with the aid of the following rule :—



Let a straight line touching the curve at any point P meet Ox in T and Oy in t, then *the measure of the elasticity at the point P is the ratio of PT to Pt.* If PT were twice Pt, a fall of one per cent. in price would cause an increase of two per cent. in the amount demanded; the elasticity of demand would be two. If PT were one-third of Pt, a fall of one per cent. in price would cause an increase of one-third per cent. in the amount demanded; the elasticity of demand would be one-third; and so on." But to this account it may be objected that elasticity *at a point* on a curve can tell us nothing of the elasticity corresponding to *finite* changes in price. In order to know the size of the elasticity in this latter sense, we need to know not merely the position of the tangent at P and the ratio of PT to Pt, but also the position of neighbouring points on the curve DD′. Hence Marshall's statement that, "if PT were twice Pt, a fall of one per cent. in price would cause an increase of two per cent. in the amount demanded," is not necessarily true, though it may often be a close approximation to the truth. Elasticity at a point, a conception derived from the differential calculus, is only the elasticity corresponding to infinitesimal changes in demand price and amount demanded.

§2. The distinction, on which I have here insisted, is between elasticity at a point and elasticity across a finite arc, or, as we may say more shortly, between *point elasticity* and *arc elasticity.* It may be thought that, in the practical application of the conception of elasticity, this distinction is trivial and that no important ambiguity can arise from it. It appears to me that this is not the case.

Referring again to Marshall's *Principles* (p. 839) we read, "if the elasticity of demand be equal to unity for all prices of the commodity, any fall in price will cause a proportionate increase in the amount bought, and therefore will make no change in the total outlay which

purchasers make for the commodity. Such a demand may therefore be called a constant outlay demand. The curve which represents it, or constant outlay curve, as it may be called, is a rectangular hyperbola with Ox and Oy as asymptotes." This passage, it appears to me, contains a definite mathematical error, due to a failure to distinguish between point elasticity and arc elasticity For a constant outlay curve, the point elasticity of demand is always equal to one, but the arc elasticity is never equal to one. The arc elasticity for such a curve is always greater than one for a fall in price and an increase in demand, and is always less than one for a rise in price and a decrease in demand; and the arc elasticity differs more greatly from one in either direction, the greater is the length of the arc. Again, for a constant outlay curve, it is not true that "any (finite) fall in price will cause a proportionate increase in the amount bought." This is only true where the arc elasticity is equal to one, which, as we have seen, it can never be for a constant outlay curve.

§3. The argument may be made clear by a simple numerical illustration, followed by a mathematical proof. Suppose a constant outlay curve, such that, whatever the price of a certain commodity, £1,000 worth of it is demanded per year in a given market. Then if the price per unit is £10, the amount demanded is 100 units. The amount demanded will fall 10%, to 90 units, if the price rises to £11⅑, a rise of 11⅑%. Here the arc elasticity of demand $=\frac{10}{11\frac{1}{9}}=\frac{9}{10}$. If, on the other hand, the price falls 50%, to £5, the amount demanded will rise 100% to 200 units, and arc elasticity of demand $=\frac{100}{50}=2$. In neither case does a given percentage movement in price cause an equal percentage movement in the amount demanded.

More generally, let x units be demanded at a price y per unit, and $(x + h)$ units at a price $(y + k)$ per unit, either h or k being negative. Then the arc elasticity of demand $= -\frac{hy}{kx}$. (When h and k are very small, we have the special case of point elasticity $= -\frac{ydx}{xdy}$.) In the case of a constant outlay curve, xy is constant.

$\therefore$ the point elasticity, $-\frac{ydx}{xdy} = 1$ at every point.

Also $xy = (x + h)(y + k)$.

$\therefore -hy = kx + hk$.

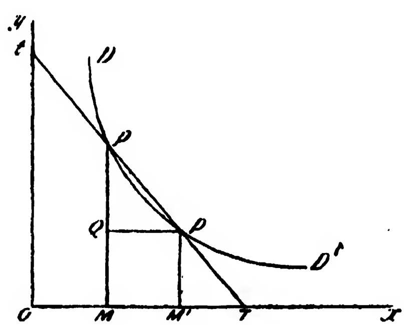
$\therefore$ the arc elasticity of demand, $-\frac{hy}{kx} = 1 + \frac{h}{x}$, which is always greater than one when h is positive, that is to say when price falls, and less than one when h is negative, that is to say when price rises.

It should also be noticed that for any demand curve the arc elasticity for a given arc is different according to which end of the arc is taken as the base, from which elasticity is measured. If the number of units demanded changes from x to $(x + h)$, when the price changes from y to $(y + k)$, the arc elasticity, measured from the base (x, y) is $-\frac{hy}{kx}$, while measured from the base $(x + h, y + k)$ it is $-\frac{h(y + k)}{k(x + h)}$. But the difference between these two elasticities will not generally be large.

§4. The distinction between point elasticity and arc elasticity is of no practical importance in *qualitative* statements, *e.g.*, that a certain result is the more likely, the greater some elasticity of demand. But it *is* of practical importance in *quantitative* statements, *e.g.*, that a certain result will follow, if some elasticity of demand is greater than a certain definite amount. An illustration

is provided by Professor Pigou's formula, noted in the previous chapter, to the effect that an increase in the supply of a factor of production, its demand curve remaining unchanged, will increase its absolute share of the product, provided that its elasticity of demand is greater than one. Elasticity here is point elasticity, and the formula is strictly correct only when the proportionate increase in supply is so small as to be negligible. But this is obviously a case of no practical interest. When, as will be the case in reality, the increase of supply is of moderate amount, the relevant elasticity will be arc elasticity, and, as argued in the preceding chapter and in §3 of this Note, the formula should be amended, so as to read that the absolute share of the factor, whose supply increases, will be increased, provided that its elasticity of demand is greater than one plus the proportionate increase in supply. Similarly, when the supply of a factor decreases, its absolute share increases, provided that its elasticity of demand is less than one minus the proportionate decrease in supply.

§5. Marshall's geometrical construction for point elasticity of demand is easily modified for arc elasticity of demand as follows :—



Let any straight line *tT* cut a demand curve *DD* in two points *P* and *P'*. Draw *PM*, *P'M'* perpendicular to

OX and $P'Q$ perpendicular to PM. Then, for the arc PP', the elasticity of demand (with base P) $=\frac{P'Q}{OM}\cdot\frac{PM}{PQ}$ $=\frac{PP'}{Pt}\cdot\frac{PT}{PP'}=\frac{PT}{Pt}$. Similarly, the elasticity of demand, (with base P') $=\frac{P'T}{P't}$.

The argument of this Note applies to elasticity of supply no less than to elasticity of demand.

CHAPTER VI

The Division of Income Between Workers and Property Owners.

§1. The argument of the last chapter will now be applied to the broad problem of the division of the total product, or income, between workers on the one hand and property owners on the other.[1] It will be necessary, to begin with, to think in terms of a number of homogeneous units of work on the one side, and of a number of homogeneous units of property on the other. Then changes in the division of income between workers on the one hand and property owners on the other depend upon the elasticities of demand and supply for work and for property, and upon the extent to which work and property are complementary or rival factors of production.

In a given state of knowledge and of consumers' demand, it seems clear that work and property are on the whole complementary and not rival. Whatever may happen to particular sub-groups within each category, there seems no reasonable doubt that in all modern communities an increase in the total supply of property increases the total demand for work, and that an increase in the total supply of work increases the total demand for property.[2]

Again, modern developments tend to increase the

[1] Compare with the argument of this chapter Cannan, *Economic Outlook*, pp 232–238, and *Wealth*, pp. 173–181.

[2] Compare Marshall, *Principles*, pp. 522–4 and 540–4, and Pigou, *Wealth and Welfare*, p. 84.

elasticity of supply of property in any particular country For, in the first place, they increase the quantity of capital, the supply of which has always some elasticity, relatively to the quantity of land, the supply of which is always practically inelastic.[1] And, in the second place, they increase the mobility of new capital between different countries, and thus increase its elasticity of supply for any particular country. It seems clear that, at the present time, the elasticity of supply of property is very much greater than the elasticity of supply of work in any particular country. Apart from the migration of workers and capital from one country to another, it is much easier to increase the amount of property in any country by a moderate percentage than to increase the amount of work by the same percentage. A rise in the rate of interest, other things being equal, tends appreciably to increase the amount of saving, but a rise in the remuneration of a unit of work acts much less certainly and less strongly upon the amount of work. By contrast with the opinion of the older economists, it now appears that, at any rate in the more civilised countries, increased comfort tends to check, rather than to stimulate, the growth of numbers.[2] On the other hand increased comfort adds to the health and efficiency of the workers directly concerned, and still more to that of their children, and this tends, *pro tanto*, to increase the amount of work. But, as against this last influence, must be set the fact that in civilised countries large numbers of workers are increasingly inclined to value an increase of leisure at least as highly as an increase of real earnings. Recent reductions of hours of work seem in many cases to go beyond the point, up to which such reductions are balanced by increased output per hour, and this tendency

[1] Property, it may be repeated, includes both land and capital.
[2] See *e.g.*, Brentano, *Economic Journal*, 1910, pp. 378-383.

is likely to continue.[1] A further factor, influencing the amount of work forthcoming at a given price, is the state of mind of the workers, and their contentment or discontent with the economic system in which they find themselves.[2] This question opens up larger problems, which cannot be pursued here. It is sufficient to point to it as another cause of uncertainty in the relation between remuneration for work and the amount of work which will be forthcoming. We may conclude, then, that, apart from the possibility of migration of workers and of capital from one country to another, the elasticity of supply of property will be considerably greater in most modern communities than the elasticity of supply of work. This conclusion is strengthened when we take account of migration, for not only is capital more mobile than workers, apart from legislative restrictions, but such restrictions, chiefly on immigration, are often imposed on the movement of workers, but seldom on the movement of capital.

§2. Since, therefore, the elasticity of supply of property is considerably greater than the elasticity of supply of work, and since property and work are on the whole complementary, and not rival, to one another, it is probable that the elasticity of demand for work is considerably greater than the elasticity of demand for property. This probability is increased, when we take account of the fact that a demand for property, to be used in production, always implies an appreciable demand for work, whereas a demand for work does not necessarily imply any, or any appreciable, demand for property.

[1] This tendency is not, of course, to be condemned, merely on the ground that the total product is less than it would have been, if hours of work had been longer. The economic ideal, as regards production, is not the maximum product, irrespective of the effort involved, but a correct balance between product and effort.

[2] Fear of unemployment, in particular, often tends to reduce the amount of work done by individuals.

This is illustrated by the demand for various personal services.[1]

§3. Turning from the relative to the absolute sizes of the various elasticities under discussion, and restricting attention to appreciable, but comparatively small, percentage changes in prices and amounts, it seems almost certain that the elasticity of supply of property in a wealthy modern country is considerably greater than one. The elasticity of supply of work is more speculative, but may perhaps be taken to be positive and less than one.

The elasticity of demand for capital, on the other hand, is almost certainly greater than one plus a proportionate increase in amount. "The chief cost in using very durable goods is at the present time the interest on the capital invested in them. If this principal item were reduced . . . to a small fraction of what it now is, there would be no luxury whatever in the way of substantial and expensive buildings and furniture, or any other durable goods, which people would deny themselves. . . . The pipe-systems for gas and water supply could be extended to every cottage in the country districts; submarine tunnels would prove a very profitable undertaking, not only under the English Channel, but under a great many other waterways in the world . . . The reader might add any number of similar instances, even if he confined himself to present technical possibilities."[2]

The elasticity of demand for land is obviously smaller than the elasticity of demand for capital, and therefore

[1] Compare Pigou, *Wealth and Welfare*, pp. 88–89. Another cause tending to make the elasticity of demand for work greater than for property is the fact that, as noted below, the relative share of work is greater than that of property in the total product. This is an application of the principle that, other things equal, the elasticity of demand for any factor is smaller, the smaller the proportion which the price of this factor bears to the total cost of production.

[2] Cassel, *Nature and Necessity of Interest*, p. 109. Compare Marshall, *Principles*, p. 223 n.

the elasticity of demand for property, in the sense of land and capital together, is somewhat smaller than the elasticity of demand for capital alone. But in most modern communities, where property in land is only a small proportion of total property, the difference between the two last named elasticities will not be large, and we may assume that the elasticity of demand for property is considerably greater than one plus a proportionate increase in amount. And the elasticity of demand for work, as we have seen, will be considerably greater than the elasticity of demand for property.

§4. In the light of this discussion, we may now apply the results of the last chapter. Consider, in the first place, an increase in the supply of work, ignoring any effect which may be produced thereby upon the demand for work. Then the absolute share of work will be increased, if the elasticity of demand for work is greater than one plus the proportionate increase in amount, and the relative share of work will be increased if this elasticity is greater than a somewhat larger figure, which, however, is less than the relative share of property divided into one plus the proportionate increase in the amount of work. Satisfactory statistics are lacking, but we may, perhaps, assume as a rough average estimate that the relative share of property is thirty per cent. in modern communities, and of work seventy per cent.[1] If, then, we assume an increase of twenty per cent. in the amount of work, the minimum elasticity of demand for work necessary to ensure an increase in the absolute share of work will be $1\frac{1}{5}$, and to ensure an increase in the relative share of work will be something less than $1\frac{1}{5}$ divided by $\frac{3}{10}$, that is to say something between $1\frac{1}{5}$ and 4.

Consider, in the second place, an increase in the supply of property, ignoring any effect which may be produced

[1] See Note at the end of this chapter

thereby upon the demand for property. Assume again an increase of twenty per cent., and that property's relative share before the change is thirty per cent. Then the minimum elasticity of demand for property necessary to ensure an increase in its absolute share will be $1\frac{1}{5}$, and to ensure an increase in its relative share will be something between $1\frac{1}{5}$ and $1\frac{1}{5}$ divided by $\frac{7}{10}$, that is to say, something between $1\frac{1}{5}$ and $1\frac{5}{7}$.

Consider, in the third place, a given increase in the demand for work, ignoring any effects upon the supply of property which may be produced thereby. Then both the absolute and relative shares of work will be increased, *but not much*, since the elasticity of supply of work is small.

Consider, in the fourth place, a given increase in the demand for property, ignoring any effects upon the supply of work, which may be produced thereby. Then both the absolute and relative shares of property will be increased *considerably*, since the elasticity of supply of property is large.

Since work and property are complementary, and not rival, to each other, an increase in the supply of work will cause an increase in the demand for property, and an increase in the supply of property will cause an increase in the demand for work. That is to say, the first and fourth cases just considered will occur together, and the second and third will occur together. Also, in so far as both work and property are complementary to themselves, the third case will also occur along with the first and fourth, and the fourth along with the second and third. But an increase in the supply of either factor will probably increase the demand for the other factor more than the demand for itself.

§5. The preceding analysis suggests that, as regards absolute shares, there is a harmony of interest between work and property to the extent that, as either or both

increase in quantity, the absolute shares of both increase. This is a conclusion of great practical importance.

As regards relative shares, there can of course be no such harmony. For the relative share of the one can only increase at the expense of the relative share of the other. The workers' chance of increasing their relative share will be favoured by the greater elasticity of demand for work, that of the property owners by the greater elasticity of supply of property. Moreover, as we see from comparing the first and second cases in the preceding section, the greater the relative share of either factor, the greater will be the difficulty of increasing it. For the greater the relative share of either factor, the greater will be the minimum elasticity of demand for that factor, which will ensure that a given increase in its supply shall increase this relative share.

On the whole, balancing the preceding considerations against one another and assuming the relative shares of work and property to be about 70% and 30% respectively, it seems likely that the relative share of property will increase, as a result of increases in the amounts of work and property, or in the amount of either alone. In practice we should expect to find the amount of property increasing faster than the amount of work, and probably the relative share of property increasing steadily, but at a steadily diminishing rate.[1] There seems to be considerable ground for regarding this as a normal tendency in capitalistic progress.[2] It seems impossible to say whether the relative share of property is likely to tend to any limit less than 100%, but it can only tend towards

[1] Compare Cannan, *Economic Outlook*, pp. 238–9, and Taussig, *Principles*, II., p. 205.

[2] In abnormal periods, and especially during and immediately after war on a large scale, this tendency may be modified. A statistical enquiry into the position in this respect in 1914 and in 1919 would be instructive.

the latter limit very slowly, since the absolute share of work is likely to go on increasing meanwhile.

§6. So far no account has been taken of the effects of new inventions or of changes in consumers' demand. These will be considered in the next two chapters. But before going on to these subjects three subsidiary points may be noticed.

First, we have been considering the relative share of property in the total income produced within a given geographical community. But this is not necessarily the same as the relative share of property in the total income of the members of this community, since members of some such communities own property in other communities.

Second, the argument of this and the last chapter is based on the assumption that all factors of production are remunerated according to their marginal net products, and probably this assumption is approximately true under the present organisation of industry. Under a Socialistic organisation of industry, however, a public authority might decide to accept a lower rate of remuneration on its property, or even none at all, and thus to reduce the relative share of property in the total income. Similarly a public authority might reduce the relative share of property by fixing wages above the marginal net product of labour. How far such policies would be in the economic interests of the community is too large a question to discuss here, but their success presupposes a willingness on the part of the public authority to raise fresh capital by compulsory levies and not by voluntary subscriptions, in respect of which interest would be payable. That is to say, it presupposes that the elasticity of supply of capital would be almost entirely determined by the public authority.

Third, the relative (net) shares of property and work might also be greatly altered by means of taxation.

In particular, a capital levy for the reduction of public debt will tend to reduce the relative share of property. For, broadly speaking, the effects of such a levy will be, first, the extinction of a large quantity of property rights and a corresponding quantity of property income, without any corresponding reduction in the amount of land and real capital available for production, and second, a consequent reduction of annual taxation or an increase in annual public expenditure unconnected with the service of the debt, or both. Property owners are practically certain to lose more under the first head than they will gain under the second, while there is reason to anticipate that a capital levy, if wisely planned and administered, will stimulate rather than check production.

NOTE

Statistics Bearing on the Division Between Workers and Owners.

I cannot discover any satisfactory statistical estimate of the relative shares of work and property in the income of modern communities. Professor Cannan, a considerable time ago, offered to an audience which he suspected of economic pessimism, certain figures, which he admitted to be highly conjectural, because they seemed to him "to suggest at any rate that the pessimists' case is not to be taken as founded on notorious facts."[1] The relative share of property at the time of the publication of Mulhall's *Dictionary of Statistics* in 1884 was, according to this conjecture, in the United Kingdom 21%, in Australia 22%, in Russia 28%, in France 29%, in the United States 33% and in Greece 54%. The last figure is the only one of these which seems markedly incredible.

For this country a later estimate can be obtained, within a large margin of error, from the items in a table given by Professor Bowley,[2] which I have rearranged as follows:—

[1] *Economic Outlook*, p. 80.

[2] *Division of the Product of Industry*, p. 14. The table is headed *The Aggregate of the Incomes of Residents in the United Kingdom*, 1911. I have omitted Old Age Pensions, 12 millions a year in 1911, from my rearranged grouping, as these are not income either from work or from property, but from civil rights, and, as regards two of Professor Bowley's items, I have assumed that 37 millions, "income evading tax or unremitted" from abroad, is all from property, and that 26 millions, "agricultural income, not otherwise included," is half from work and half from property.

I. *Income from Work—*	*Million £.*
Wages	782
Salaries less than £160	84
Independent workers, small employers, farmers, etc., less than £160 ..	180
Salaries above £160	130
Occupation of lands (Schedule B) ..	15
Soldiers and Sailors abroad	20
Agricultural income, not otherwise included	13
Total	1224
II. *Income from Property—*	
Ownership of lands and buildings (Schedule A)	178
Government Securities (Schedule C) ..	48
Evading tax or unremitted	37
Unearned income below £160	50
Agricultural income, not otherwise included	13
Total	326
III. *Income Partly from Work and Partly from Property—*	
Profits from Trades, Professions, etc. (Schedule D)	528

The total income from these three groups is 2,078 millions. If all the income under Schedule D were derived from work, the relative share of work would be 84% and of property 16%; if all this doubtful income were derived from property, the relative share of work would be 59% and of property 41%. In fact, it may safely be assumed that at least half this doubtful income, and probably more, is derived from property, so that the relative share of work would be at the most 71% and the relative share of property at the least 29%.

Another starting point is provided by Dr. Stamp's estimates of the pre-war *Wealth and Income of the Chief Powers*.[1] In the following table Columns I. and II. are taken from Dr. Stamp's estimates. I have calculated Column III. by assuming that the interest on capital is an average 5%, and Column IV. by comparing Columns I. and III.

	I. Income per head.	II. Capital (including land) per head.	III. Income from property per head.	IV. Relative share of property in total income.
United Kingdom	£50	£318	£16	32%
United States	72	424	21	29%
Germany	30	244	12	40%
France	38	303	15	39%
Italy	23	128	6	26%
Australia	54	318	16	30%
Canada	40	300	15	37·5%
Japan	6	44	2	33%

If it be thought that 5% is too low an average rate of interest in any particular country, the relative share of property should, of course, be increased. It should be noted that in each country property abroad owned by its citizens is included, and property at home owned by outsiders excluded. But no great reliance can be placed upon the percentages obtained and it is very desirable that statisticians should enquire further into the matter.[2]

[1] *Statistical Journal*, July, 1919.

[2] Professor Bowley, on pp. 23–6 of his latest pamphlet, *The Change in the Distribution of the National Income*, 1880–1913, which appears as these pages are going through the press, argues that during this period the relative share of property in this country has remained very nearly constant at about 37½%.

CHAPTER VII

The Effects of Inventions.

§1. In the last chapter it was argued that, apart from the effects of inventions and of changes in consumers' demand, there was some ground for holding that in normal periods of economic progress, under a capitalistic organisation of industry, there was a tendency for the absolute share of both workers and property owners to increase, and also for the relative share of the owners to increase at the expense of the relative share of the workers. We shall consider in this and the following chapter how far this tendency is either strengthened or weakened by the effects of inventions and of changes in consumers' demand.

§2. Much has been written on the effects of inventions. On the one hand it is sometimes said that the effect of labour-saving inventions, at any rate, is to reduce real wages and restrict employment. On the other hand Professor Clark has expressed the following optimistic opinion. "An invention makes it possible to produce something more cheaply . . . It has made a definite addition to the income of society, and from the moment when the improved method has been put into operation, the static standard of wages has been higher. The rate towards which the pay of labor is now tending, is not what it was before the invention was applied, but it is a new and higher rate."[1]

Invention is a form of work. But it differs from most other forms of work in that it is heterogeneous and

[1] *Distribution of Wealth*, p. 405

intermittent, in that there is no regular market for it, in that its results are not standardisable, and often indeed cannot be traced to the work of definite individuals.[1] Inventors as a body have no trade union and no standard rates. We cannot easily imagine a demand or supply curve for invention. It is better, therefore, for our present purpose, to think of inventions as causing changes in the demand for various other factors of production.

An invention, or minor improvement, introduced into any particular industry causes a change in productive methods, which reduces cost of production per unit below what it would otherwise have been. If such a reduction were not anticipated, the invention would not be introduced.[2] Thus many inventions remain for a long while in the state of not being "commercial propositions." But such inventions may later on become profitable, as the result of changes in the conditions of supply of various factors of production, or in the conditions of demand for various goods and services. Thus many modern improvements have only been rendered practicable by large accumulations of capital and a considerable density of population. Great accumulations of capital were necessary for the building of modern railway systems, and great accumulations of population for that of tramways in large towns. On the other hand, the shortage or high price of any particular factor of production, no less than

[1] Compare Marshall. *Principles* p. 206 n. "The full importance of an epoch-making idea is often not perceived in the generation in which it is made. . . . The mechanical inventions of every age are apt to be underrated relatively to those of earlier times. For a new discovery is seldom fully effective for practical purposes till many minor improvements and subsidiary discoveries have gathered themselves around it."

[2] Except where an invention results in the substitution of a new commodity, more attractive to consumers, for an old commodity, with no reduction, or even with an increase, of price. Many modern examples of this type of invention could probably be found, *e.g.*, in colour printing, but they are not likely to be of great quantitative importance.

its abundance or low price, may be a cause of changes in the methods of production. It is said that the improvement of mechanical appliances in the South African gold mines was stimulated by the repatriation of the Chinese labourers introduced by Lord Milner at the end of the South African War, and similar effects are often produced by trade union pressure for higher wages and shorter hours.[1] Employers here have a specially strong motive to economise labour. In other cases there is a specially strong motive to economise capital, or to economise land, when the price of either is high. The growth of knowledge, moreover, is continually giving birth to new potential inventions, some of which come into operation immediately, others after an interval of time.

§3. The classification of inventions is a matter of some difficulty. A "labour-saving invention" is a phrase commonly used, but not always clearly defined. Most employers, probably, would define a labour-saving invention as one which reduces the wages paid per unit of product in their own business.[2] A better definition for our present purpose, which covers most, though not all, of the same ground, is that a labour-saving invention is one which reduces the proportion of wages to selling price, per unit, in the industry in which it is introduced.[3]

If we adopt this latter definition, it follows that the

[1] Compare Pigou, *Wealth and Welfare*, pp. 322–3, and *Industrial Peace*, pp. 181-2, and Webb, *Industrial Democracy*, pp. 413–4.

[2] See *e.g.*, H. P. Greg, *Man and Machinery, Their Economic Value in the Textile Trade of To-day*, p. 15.

[3] Other alternative definitions are plausible, *e.g.*, an invention which reduces (1) the number of persons employed, or (2) the number of persons employed per unit of output, or (3) the total wages paid per unit of time, or (4) the number of "man-hours" worked per unit of time, or (5) the number of "man-hours" worked per unit of output, or (6) the intensity or disutility of work for the average worker. This variety of possible definitions arises from the fact that "labour-saving' may mean different things according to the point of view of the speaker, *e.g.*, an employer or a workman; also from the fact that the saving may be either absolute or relative.

relative share of labour is reduced in the industry in which the invention is introduced. Whether or not the absolute share of labour will be reduced, depends upon the amount of the wage reduction per unit, upon the elasticity of demand for the product and upon the extent to which the cheapened product is consumed by the workers who produce it. So far the matter is clear. But it is a defect of any classification of inventions, which takes account only of the effects produced in the particular industry where the inventions are applied, that it tells us nothing of the effect produced upon the absolute and relative shares of the factors of production in industry as a whole.[1] For the introduction of an invention at any point is liable to have immediate reactions upon the demand for the various factors of production throughout industry, and other reactions, mostly less immediate, upon their supply.[2] Such reactions have been very important, for example, in the history of inventions in transport. There is, therefore, something to be said for generalising our definition of a labour-saving invention, so as to cover all inventions which reduce the relative share of labour in industry as a whole, while reducing or increasing the absolute share of labour according to the special circumstances of the case. If, however, this generalised definition is adopted, the character of any particular invention is less readily recognised. In either case, a labour-saving invention is not necessarilv a work-

[1] Compare, on this point and on the effects of inventions generally, Pigou, *Wealth and Welfare*, pp. 84–92.

[2] Thus an invention, which is labour-saving in the industry where it is introduced, or, as we may say, primarily labour-saving, may involve a large increase in the demand for machinery, and hence in the demand for labour to make this machinery. Similarly, an invention which is primarily capital-saving, may involve a large decrease in the demand for labour which previously made the machinery, which is now dispensed with. An invention which is primarily labour-saving or primarily capital-saving, need not be, labour-saving or capital-saving, as the case may be, in industry as a whole.

saving invention, using "work" in the broad sense adopted elsewhere in this book to cover the activities of all workers, and not merely of wage earners. In practice, many labour-saving inventions are not work-saving in this sense since, at any rate in their immediate effects, they considerably enrich the business men responsible for their introduction.

Capital-saving and land-saving inventions may be similarly defined, either in the narrow or in the generalised sense, as inventions which reduce the relative share of capital and of land respectively, either in the industry directly affected or in industry as a whole. In the subsequent discussion the generalised sense will be adopted. It is obvious, as far as the definition is concerned, that the same invention may simultaneously reduce the relative shares of two or more factors of production, so long as it increases the relative share of at least one factor. But it is unlikely that the same invention will be both labour-saving and capital-saving.

§4. As regards the effects of inventions upon the absolute shares of factors of production, it will be noticed that the test is, whether particular inventions are complementary or rival to these factors in the sense used in preceding chapters. In so far as inventions increase production, every invention must be complementary to all factors of production taken together, but it may be rival to particular factors taken separately. Thus an invention will be rival to labour, if it reduces the demand for labour in the community as a whole, not merely in the industry concerned; it will be rival to capital, if it reduces the demand for capital; it will be rival to land, if it reduces the demand for land.

§5. The question of practical interest is, what types of invention are, in reality, the most common and the most important. Land-saving inventions will be discussed in a later chapter. As regards other inventions,

which may, of course, be of a neutral character, reducing cost of production, but not altering the proportionate cost of the various factors employed, the following conclusions seem reasonable, though the subject is speculative and little assistance can be obtained from statistics.

(1) The great majority of inventions are obviously complementary both to capital, to work, and to labour in the narrower sense, and their effect is to increase the absolute shares of all these factors.

(2) Particular inventions may be rival to capital as a whole, or to labour as a whole, but there seems very little evidence that such inventions have been frequent or important.

(3) There is no lack of evidence that particular inventions have been rival to special groups of capitalists or workers, and have diminished the incomes of such groups.[1]

(4) Labour-saving inventions have been more numerous and important in the past than capital-saving inventions. On this last point something further may be said.

§6. A suggestive distinction, broadly, though not precisely, equivalent to that between labour-saving and capital-saving inventions, is the distinction between those inventions which complicate, and those which simplify, machinery. Professor Johnson goes so far as to assert that "capital-saving devices, though comparatively neglected in economic literature, are probably not less frequent or important than labour-saving devices. Simplification of machinery, cheapening of machines through improvements in the technique of their manufacture, are processes taking place everywhere."[2]

[1] Compare Pigou, *Wealth and Welfare*, p. 85, and Johnson, *Effect of Labour-Saving Devices on Wages* (*Quarterly Journal of Economics*, Nov., 1905).

[2] *Ibid*, p. 101. Professor Johnson defines a labour-saving invention as one which reduces the wages paid per unit of output, and a capital-saving invention similarly.

The comparative neglect of capital-saving inventions, both by professional economists[1] and by others, seems to be partly due to the manner of their introduction. For, in the first place, they are less apt than labour-saving inventions to cause large, sudden and easily traceable displacements of labour. In the second place, the disappearance of old machines attracts less attention than the appearance of new and unfamiliar machines. And, in the third place, a capital-saving invention often leaves no visible trace of its introduction. For example, invention in recent years has enabled a larger number of messages to be sent along a single wire, both by telegraph and telephone, in a given time. A capital outlay on additional wires, which would otherwise have been necessary, has thus been saved. Again, the need for capital outlay in duplicating railway lines, in order to deal with an increase in traffic, has been partly avoided by new devices for handling a denser traffic on the existing lines. Another important example of a capital-saving invention is any device, which results in the more continuous working of machinery by means of multiple shifts. The social disadvantages of nightwork and the increasing appreciation of these disadvantages by many classes of workers,[2] limit the possible extension of the multiple shift system. But the present tendency to shorten the length of the normal shift in many industries,

[1] Sidgwick is one of the few textbook writers, who notes explicitly the possibilities of capital-saving inventions. "Hitherto," he says, "inventions have generally had the effect of complicating and prolonging the processes of industry. . . . But this has not always been the case; and so far as I know, there is no definite reason why the inventions of the future should not be chiefly in the direction of simplifying and abbreviating industrial processes; so that at each step of improvement the demand for capital will be restricted instead of being enlarged." (*Principles of Political Economy*, p. 160). For more recent references to the subject see Cannan, *Wealth*, pp. 134–6, and Pigou, *Wealth and Welfare*, p. 87.

[2] Compare, *e.g.*, the *Report of the Committee on Night Baking*, appointed by the Minister of Labour, 1919.

where expensive machinery is used, opens up new possibilities of increasing, by means of multiple shifts, the proportion of the twenty-four hours, during which the machinery is kept running.[1]

The future course of invention is a subject on which economists, and even engineers and chemists, will be wise not to prophesy confidently.[2] Wireless telegraphy is a striking example of an unanticipated capital-saving invention, and the gradual substitution of motor omnibuses for trams, and of motor lorries for railways in the transport of many sorts of goods, is now anticipated by many engineers.[3] The future balance between capital-saving and labour-saving inventions seems incapable of forecast. As regards the absolute shares of the chief factors of production, work, labour in the narrower sense, and capital,[4] it seems unlikely that these will be reduced by future inventions below what they would otherwise have been. As regards relative shares, the question turns on whether work-saving or capital-saving inventions predominate. If the former, the tendency discussed in the last chapter for the relative share of work to decrease will be strengthened; if the latter, this tendency will be weakened and may even be reversed.

[1] See Leverhulme, *The Six Hour Day and Other Essays*. Compare also Cassel, *Nature and Necessity of Interest*, pp. 102–4, and Marshall, *Principles*, pp. 695–6.

[2] Professor Cassel in this matter is an unwise economist, when he asserts, (*Ibid*, p. 113) with regard to capital-saving inventions, that "it is obvious that the scope for such progress is not, and indeed cannot be, very extensive."

[3] The capital-saving involved in substituting motor transport, which does not require either a permanent way or an electric cable, for forms of transport which do require these things, is less than may appear at first sight, since additional expenditure on roads is necessitated.

[4] For the case of land see Chapter IX. below.

CHAPTER VIII

THE EFFECTS OF CHANGES IN THE CHARACTER OF CONSUMERS' DEMAND.

§1. Inventions bring about changes in producers' demand for the various factors of production. But we must also take account of changes in consumers' demand for consumable goods and services, and consider how far such changes are likely to affect the absolute and relative shares of the various factors. Three causes of changes in consumers' demand may be usefully distinguished; first, changes in the tastes and habits of consumers, unaccompanied by changes in the relative incomes of individuals and classes or in the total production per head of the community; second, changes in the relative incomes of individuals and classes, unaccompanied by changes in the total production per head; third, changes in the total production per head.

§2. Apart from wars, the effects of which will not be considered here, changes of the first sort are not very important for our present purpose. Changes in fashion are most prominent, of course, in luxury trades which, however, only absorb a small part of the productive resources of any community.[1] In any case, it seems

[1] Even in France, according to a French estimate, less than ½% of the total production consists of articles of luxury. See Robertson, *Industrial Fluctuation*, pp. 71–72. Mr. Robertson gives various examples of the effects of changes in fashion, which are more amusing than important, *e.g.*, the effects of the spread of the habit of bicycling among women, and of the Chinese Revolution of 1911, as a result of which many Chinamen gave up wearing pigtails, to the great benefit of the sofa-stuffing trade in this country, owing to the cheap import of large consignments of these discarded emblems of the past.

impossible to draw any general conclusions as to the effects likely to be produced on the absolute or relative shares of the various factors of production.

Changes of the second sort may be distinguished according as they involve a transfer of purchasing power from richer to poorer, or from poorer to richer, that is to say according as they diminish or increase the inequality of incomes. In the former case they will involve, broadly speaking, a substitution of necessaries for luxuries, in the latter of luxuries for necessaries. The effects of such a substitution upon the demand for the various factors of production in any modern community is complicated by the fact that both necessaries and luxuries are to a great extent obtained by means of foreign trade.[1] There is, however, some ground for believing that, as a general rule, the larger a man's income, the smaller the proportion of it, which he spends on material commodities, and the larger the proportion which he spends upon direct personal services. In so far as this is so, it follows that a transfer from richer to poorer will tend to increase the demand for material commodities relatively to the demand for personal services, and hence probably to increase the relative share of capital relatively to that of work; and *vice versa*. But in neither case is this tendency likely to be very important.

It is likely, however, to be rather more important in the case of changes of the third sort. For where production per head is increasing, the demand for personal

[1] This consideration throws doubt upon the argument of various writers that a reduction in the inequality of incomes would cause a reduction in the violence of trade fluctuations in this country. For a large part of our food and of the raw materials used in the manufacture of necessaries is imported, and is liable to great fluctuations of supply owing to variable harvests. On the other hand, the employment of the retainers of the rich—footmen, gamekeepers, etc., is hardly liable to fluctuation at all.

services is likely to grow relatively to the demand for material commodities, and hence there will be a tendency for the relative share of work to increase and of capital to diminish. But, on the whole, the effects of changes in the character of consumers' demand are likely to be small compared to the effects of inventions and of changes in the conditions of supply of the various factors of production.

CHAPTER IX

The Share of the Landowner.

§1. Land, considered as a separate factor of production, is commonly said to have two peculiarities. It is fixed in position and limited in quantity. For certain purposes, as has been pointed out above, income from land is best considered as merely part of the larger category of incomes from property, but the two peculiarities just noticed make it possible and sometimes useful to consider land separately. There is often, of course, great practical difficulty in distinguishing income derived from land from income derived from capital sunk in the land, but this difficulty will not be pursued here.

The proposition that the amount of land surface available for economic purposes is a fixed quantity, incapable either of increase or diminution, is not strictly true. The forces of nature, if left to themselves, may slowly increase it, as in South Russia, where the rivers year by year carry down to the sea great quantities of earth, which are gradually filling up the Sea of Azov, or they may slowly diminish it, as in the case of the coast erosion, which is slowly taking place in England and elsewhere. But these changes are too slow to be of any great economic significance.

More important in this connection, than the uncontrolled action of nature, is the deliberate action of man. For it is often possible, if the expense be thought worth while, to "reclaim" submerged land from the sea and, to a more limited extent, from marshes, lakes, and rivers. The Dutch, by means of reclamation works, have increased

the area of Holland by ten per cent and hope to increase it still further. But Holland is a small and thickly-populated country, and is in this matter only a striking exception to a very general rule.

It is a more important point that in new countries, such as Canada, the supply of land available for economic purposes is not fixed, but is gradually increasing owing to railway and other developments. The physical boundaries of Canada stretch, indeed, to the North Pole, but only a small portion of the area within them can be said, at present, to constitute an economically effective supply of land. In the cases both of Holland and of Canada we may, therefore, speak of the cost of production of new land and, say, following the general theory of value, that the value of land now in use cannot long exceed the cost of production of new land of equal accessibility or fertility.

But in the old and settled countries, to which the argument of this book chiefly applies, the assumption that the amount of land surface available for economic purposes is a fixed quantity may legitimately be made. This is the same thing as saying that the elasticity of supply of land is equal to zero,[1] and it follows that changes in the absolute share of the total income of the community, which accrues to landowners as such, can only be altered by changes in the conditions of demand for land.[2] The value of land is derived, less from the bounty of nature, as is sometimes rather sanctimoniously said, than from the niggardliness of nature in not providing more of it. The bounty of nature is more plausibly illustrated by the habits of those too prolific peoples, who overcrowd their narrow habitations.

[1] This, again, is equivalent to saying that the supply curve of land is an immovable straight line parallel to the axis of price.

[2] Taxation, of course, might reduce their incomes, but then the taxing authority would, in effect, be receiving part of the landowners' incomes, and passing it on to others.

§2. We may now consider the causes of changes in the absolute and relative share of landowners in an old and settled country. Apart from the effects of inventions and of changes in the character of consumers' demand, it seems clear that land is complementary both to work and capital, in the sense that an increase in the supply of either work or capital will cause an increase in the demand for land. Such an increase in demand will obviously increase the landowners' absolute share, but unless this increase in demand is proportionately greater than the increase of production, of which it will generally be an effect, the landowners' relative share will diminish.[1] This normal tendency might, however, be modified by various circumstances.

§3. A labour-saving or capital-saving invention, by reducing the relative share of labour or capital, might increase the relative share of land. But it seems unlikely that this often happens. More important is the possibility of land-saving inventions, as the result of which not only the relative, but also the absolute, share of land might be reduced. The possibility of agricultural improvements, which might reduce aggregate agricultural rent, was discussed by Ricardo.[2] His discussion was based on several assumptions that are now unreal, notably the impossibility of importing agricultural produce from abroad. Granted this possibility, even though it be hindered by protective tariffs, it is obvious that improvements in transport and the development of new sources of supply of agricultural produce may reduce aggregate agricultural rent in an old country.

Apart from importation, scientific discoveries may in the future produce far more sensational results than any dreamed of by Ricardo. Organic chemistry has already

[1] Compare Cannan, *Theories of Production and Distribution*, p. 354.

[2] *Works*, pp. 41–4. Compare the comments of Cannan, *op. cit.*, pp. 321–331, and Marshall, *Principles*, pp. 834–837.

made some small progress in the production of synthetic, in place of natural, products. Rubber, indigo, and diamonds are examples. Further advances in this direction may lead to the substitution of synthetic for natural foodstuffs upon a considerable scale, and hence to a considerable reduction in the quantity of raw material, including foodstuffs, required to be grown on the surface of the earth. The application of electricity also opens out large possibilities. The French chemist, Berthelot, conceived the idea that all the wheat required in Paris might one day be most economically grown with the aid of electricity in a few gigantic towers erected on the outskirts of the city. Each of these towers would contain a number of layers of specially prepared soil capable, when reinforced with electrical energy, of bearing a continuous and rapid succession of rich harvests. Such ideas still belong to the kingdom of the imagination, but no prudent man will pronounce them to be incapable of being realised within the next hundred years. Their effect, if realised on a large scale, would certainly be to reduce the relative, and probably also the absolute, share of agricultural rent both in the country where they were introduced, and also in other countries which produced agricultural produce for export. Such ideas illustrate the way in which the tendency to diminishing returns in agriculture may be prevented from operating by new inventions.[1]

§4. It is not, however, in income from agricultural land, but in income from all land in a particular country, that we are primarily interested. As regards non-

[1] It should also be noticed that, in so far as increase of population can be said to stimulate the tendency to diminishing returns, it is increase of population in the world as a whole that is significant, rather than increase of population in any one country. Professor Pigou (*Wealth and Welfare*, p. 93 n.) argues that an agricultural improvement is likely to increase the relative share of rent "if diminishing returns act sharply," but otherwise to reduce it.

agricultural land, the possibilities of land-saving inventions are large. "For instance," as Marshall observes, "the American plan of building stores sixteen storeys high with steel frames and served with elevators, may be supposed suddenly to become very efficient, economical, and convenient in consequence of improvements in the arts of building, lighting and ventilation and the making of elevators. In that case the trading part of each town would occupy a less area than now; a good deal of land would have to revert to less remunerative uses; and the net result might possibly be a fall in the aggregate site values of the town."[1] Such developments are checked, and the incomes of landowners consequently increased, in this country by various building bye-laws, which it may be desirable in the near future to reconsider.

As regards land used for dwellings, no less than for industrial purposes, opportunities for land saving inventions present themselves. The substitution of blocks of flats for single houses, whether by conversion of existing houses, or by rebuilding on the same sites, works strongly in this direction.

It was pointed out in Chapter VII §6 above that the substitution of motors for railways would be a capital-saving invention. Still more markedly would it be a land-saving invention, since it would make available for other purposes some of the land now occupied by railways, or at any rate some of the land which would otherwise be occupied by extensions of railways.[2] The commercial use of aircraft on a large scale, whether for the carriage of passengers or goods, would be land-saving to an even greater extent.

Whatever forms of transport are employed in the future,

[1] *Principles*, p. 837.

[2] Though here again the amount of land-saving might be reduced by the need to improve and extend the roads, on which the motors, in common with other traffic, would run.

there are further possibilities of land-saving in such devices as Mr. Gattie's "vertical goods yard," which, though adversely reported on by a Departmental Committee of the Board of Trade,[1] is considered practicable by several competent engineers.

Further, though, as Marshall points out, "the distinction between differential rents and scarcity rents is not fundamental,"[2] the influence of certain inventions upon differential rents is more easily traced than upon the general conditions of demand for land. Thus the gradual development and relatively cheap distribution of electric power, based on water power, for factories is tending to diminish differential rents in Northern Italy, and the same thing is likely to happen over large areas in the future. This is likely to be equivalent to a land-saving invention.

§5. Changes in the character of consumers' demand may affect in either direction both the relative and absolute shares of land. Following the threefold classification of these changes adopted in the last chapter, we may first consider changes in taste or fashion, irrespective of changes in the size of incomes. An example here is the demand for alcohol. Per unit of selling price, alcohol involves an exceptionally large demand for land, for the cultivation of vines, hops, and other alcoholic crops. Nor is all land equally suitable for these purposes. Rent, therefore, forms an exceptionally large proportion of the cost of production of alcoholic products, and any fall in the demand for the latter, either in the home market or in foreign markets to which they are exported, will tend to reduce the absolute share of land in the country where they are produced.[3]

[1] *Report of the Gattie Committee.* (Cmd. 492 of 1919).

[2] *Principles*, pp. 422–3.

[3] Historical evidence suggests that the proportion of England under alcoholic crops was enormously greater in the eleventh century than

Changes due to a redistribution of income between different classes and persons may affect the demand for land in various ways. One example only will be noted here. Other things being equal, it appears that, the poorer a man is, the larger the proportion of his income which he spends upon house rent in the ordinary sense and probably, therefore, the larger the proportion which he spends on the economic rent of the site on which his house stands. If this be so, it follows that a reduced inequality of incomes will increase the demand for land for housing purposes and hence, probably, for land for all purposes. On the other hand, an increased inequality of incomes may lead to an increased demand for land by the rich for purposes of sport, amenity, and social prestige. It is difficult to balance these conflicting considerations.

Changes in the character of demand due to an increase in the total income of a community will show themselves differently, according as population is or is not increasing. In the former case, there will almost certainly be an increase in the demand for land, in the latter the probability is considerably smaller, though it is noteworthy that modern communities, as they increase in wealth, exercise an increasing demand for space for outdoor sports, parks, etc.

§6. To sum up, the normal tendency in modern communities appears to be that, apart from inventions and changes in consumers' demand, the absolute share of land should increase and its relative share diminish. The effect of inventions seems likely, on the whole, to be adverse to the interests of landowners, but, apart from sensational possibilities which cannot be counted upon, not sufficiently adverse to cause the absolute share of

in more recent times. See Maitland, *Domesday Book and Beyond*, pp. 438–440. "With such figures before us, it becomes a serious question whether we can devote less than a third of the sown land to the provision of drink" in the form of beer.

land to decrease in a community increasing in wealth. The effects of changes in consumers' demand seem too conflicting and uncertain to afford a basis for any general conclusion.

CHAPTER X

Changes in the Relative Importance of Different Industries.

§1. Light may be thrown from another angle upon the problems which we have been considering in the last five chapters by a study of the relative importance of different industries or, more broadly, of different employments, in any community, and of their changes from time to time.

Following the principle adopted in the British Census of Production of 1907, the relative importance of different industries, or employments, may be measured, for our present purpose, by the relative money value of their annual net outputs. This principle is capable of extension, beyond the range of industries covered by the Census of Production, to the net output of personal services, as distinct from material commodities. In the case of the medical, legal, and other private professions, which offer services for sale, the valuation of net output presents no great difficulty beyond the collection of the relevant statistics. In the case of public servants, employees of the State or local authorities, who render services which are paid for out of public revenue and not specifically, it is a matter of greater difficulty to decide what should be included in the value of net output in addition to the salaries of these employees. But difficulties of this type can be solved by arbitrary decisions.

The absolute share of any factor of production in the total income of the community is the sum of the absolute shares of that factor in all the employments which contribute to the total income of the community. Similarly the relative share of any factor is the weighted average of

Q

the relative shares of that factor in all these employments. The weighting of the average is according to the relative importance of the different employments. As between different employments in any community, the relative shares of factors show great variation. Thus in this country before the war the annual net output of certain industries was divided in the following percentages.[1]

Percentage of annual net output paid in	*Wages.*	*Salaries.*	*Rent, Interest and Profits.*	*Average annual earnings per wage-earner*
	Per Cent	*Per Cent*	*Per Cent*	£
Railways	39	9	52	65
Coal Mining (royalties included)	75	3	22	72
Coal Mining (royalties excluded)	82¼	3½	14¼	72
Iron and Steel Production	74	7	19	81
Engineering	62	11	27	66.5
Shipbuilding	75	8	18	70.5
Cotton	66	4	30	48
Wool and Worsted	61	7	32	40
Jute, Hemp & Linen	55	6	39	31.5
Boots and Shoes	70	14	16	48
Brewing and Malting	17	8	75	63
Tobacco	20	8	72	34.5
Printing and Bookbinding	64	16	20	56.5
Building and Contracting	83	$\underbrace{\qquad\qquad}_{17}$		67
Gas Companies	37	7	56	78

[1] Bowley, *Division of the Product of Industry*, pp. 42–5, following in the main the Census of Production.

Two of the most important causes of these variations in percentages are, according to Professor Bowley, the amount of capital employed per worker, and the sex of the workers employed. Thus the amount of capital per worker is exceptionally large on the railways and in the tobacco trade,[1] while the proportion of male to female workers is high in coal mining, the metal trades, building and gas works, and low in the textiles and in tobacco. It will also be noticed that, as a general rule, the higher the percentage of wages to net output, the higher are the

[1] On the other hand Professor H. L. Moore (*Laws of Wages*, pp. 55–70) argues that the relative share of labour increases with the amount of capital employed per worker, or in other words that the relative share of labour is greatest, and of capital smallest, in the most highly capitalised industries. Professor Moore seems to think that this result is involved in the specific productivity theory of wages, of which he is an adherent. His argument consists in applying the theory of correlation to certain statistics of the French coal-mining industry between the years 1847 and 1899. These statistics are (1) the ratio each year of daily wages to the value of a day's product per worker, and (2) the amount of machine power employed per 100 workers. He obtains from these figures a positive correlation of .599. This is not a high degree of correlation and the argument is unconvincing in other respects. For it only takes account of a single industry in a single country, and it allows nothing for changes in the efficiency of labour or of improvements in machinery over a period of 52 years. It illustrates the theoretical difficulty of measuring both quantities of labour power and quantities of capital.

Marshall (*Industry and Trade*, pp. 831–2) quotes the following statistics from American censuses regarding the production of factories in the United States :—

	Wages (million dollars).	Gross output (million dollars).	Net output (million dollars).
1900	2008	11407	4831
1905	2610	14794	6294
1910	3427	20672	8529

The proportion of wages to net output thus fell from 41.6% in 1900 to 41.5 in 1905, and to 40.2 in 1910. Between 1900 and 1910 the number of wage-earners increased from 4,712,000 to 6,615,000, *i.e.*, by 40 %, the money value of the capital employed from 8,975 to 18,428 million dollars, *i.e.*, by 105 %, and the horse power used from 10 to nearly 19 million units, *i.e.* by nearly 90 %. This is the type of statistical information, which, if it was forthcoming on a large scale over considerable periods of time, would be of great interest and value.

average earnings per worker. But to this rule there are one or two striking exceptions.

As regards some of the industries and employments not included in the above table, it is certain that the percentages of wages and salaries are exceptionally high in the professions and in most branches of the public service, are exceptionally low in agriculture and are practically non-existent as regards income from foreign investments.

As regards the broad division between workers and property owners in any particular industry, the percentage of wages plus salaries gives a minimum for the relative share of the workers, but something must be added to this, in so far as profits represent work done by employers, as distinct from income derived from their own property.

As regards the relative share of land, as distinct from other property, no information is forthcoming from the above statistics. In agriculture and other extractive industries, however, it is probable that economic rent generally forms a larger proportion of cost of production than in manufacture.[1] It is also obvious and important that in the shipping industry the proportion is exceedingly small, the only payments of economic rent which are involved here being in respect of the sites of offices, warehouses, etc., ashore. For, though human ingenuity, prompted by the desire for gain and aided by indulgent laws, is ever seeking new extensions of private property, the sea has hitherto resisted attempts at appropriation, except to a limited extent in the close vicinity of land. Physical difficulties have thus hitherto prevented the rise of a sea-owning class. Nor does it seem likely that, as

[1] Compare Marshall, *Principles*, p. 473 n. The statement in the text has no relevance to the rather tedious and ill-worded controversy, as to whether rent "enters into" cost of production, in the sense of helping to determine it.

the industry of transport by air develops, a class of private air-owners will be permitted to take toll of it. The legal rights of the landowner, indeed, according to the old textbooks, extend "usque ad coelum et ad inferos"—up to heaven and down to hell—but, whatever may happen to the others, it seems clear that the landowners' celestial rights, which would in any case be mostly unenforceable, will not be very substantial in the future.

§2. The question suggests itself, whether distribution might not be advantageously modified, in the direction of reducing the inequality of incomes, by the deliberate encouragement of certain industries and employments at the expense of others.[1] Thus the relative share of land might be reduced by the discouragement, by taxation or otherwise, of those employments in which rent forms a high proportion of cost of production, and the encouragement, by bounty or otherwise, of those in which rent forms a low proportion. This policy would be illustrated by a bounty to shipping out of the proceeds of a tax on agriculture, the converse of what is, in effect, proposed by most Protectionists. Similarly, in order to encourage employments, in which wages form a high proportion of cost of production, and to discourage those, in which wages form a low proportion, a bounty might be given to the production of coal or of buildings out of the proceeds of a tax on brewing or the manufacture of tobacco.

The effects of such policies upon the inequality of incomes depend upon the relation between categories and persons, which requires further discussion, and also upon the reactions on the total volume of production, on relative prices, on interdependent industries and on

[1] Deliberate manipulation of the relative importance of different industries has been proposed, from a different point of view, by Protectionist writers. See *e.g.*, Ashley, *Tariff Problem*, pp. 105–113, 133–4, etc.

foreign trade, which such policies would cause. There are better and less speculative methods of reducing inequality, which will be discussed in the next Part of this book.

CHAPTER XI

Categories and Persons.

The argument of the preceding chapters of this Part has dealt with the causes which determine the absolute and relative shares of categories. The main conclusion which has emerged is an apparent tendency, under modern conditions, for the relative share of property to increase at the expense of the relative share of work. For those who are primarily interested in the economic welfare of persons, the interest of such a discovery is only indirect and preliminary. In the next Part a direct study will be made of the inequality of personal incomes.

No certain deduction can be drawn from the division of income between work and property regarding the division of income between persons. For this depends also upon the division of the total income from work among individual workers, the division of the total income from property among owners, and the cross classification between workers and owners. As Professor Cannan points out, "a distribution between property and labour extremely favourable to labour might be compatible with a large proportion of the people being in the most abject poverty, and a distribution extraordinarily favourable to property might be compatible with an equality of distribution hitherto unknown. When the distribution was favourable to labour, the property might be massed in few hands, and earnings very unequally distributed; when the distribution was favourable to property, the property might be widely

distributed and earnings very equal."[1] But, in the conditions of modern communities, where the greater part of the income from property goes to a numerically insignificant fraction of the population, while the great majority of the population derive nearly all their income from work, there is a presumption that an increase in the relative share of property will involve an increase in the inequality of incomes.

Further, it is important to distinguish, from the point of view of its effects on welfare, between an increase in the amount of work which comes about through an increase in the number of workers, and one which comes about through an increase in their efficiency. In either case an increase in the amount of work will increase the absolute share of the workers in the total product. In the latter case it will certainly increase the earnings of the average worker, but in the former case it may or may not, being more likely to do so, the greater the elasticity of demand for work.

[1] *Economic Outlook*, pp. 39–40.

PART IV

The Division of Income between Persons.

PART IV

CHAPTER I

The General Causes of the Inequality of Incomes.

§1. It has already been remarked[1] that, up to 1911, no systematic treatise on economic principles had contained any attempt to answer, comprehensively and directly, the question : What are the causes of inequality of individual incomes ? ; that in that year Professor Taussig published the first edition of his *Principles of Economics*, in which he devoted one chapter out of seventy to *Inequality and its Causes* ; and that since that date there is no great progress to record in the treatment by economists of this part of what Ricardo called " the principal problem of political economy," the solution of which was sketched in outline by Professor Cannan in 1905 in his classical article, *The Division of Income*.

In the following chapters an attempt will be made to fill in some further details of this solution. The discussion will be conducted throughout with special reference to practical methods of reducing inequality, without damage, and if possible with benefit, to productive power. For the waste of potential human welfare, which great inequality involves, is the central idea upon which the various enquiries undertaken in this book are designed to converge.

[1] See Part II., Chapters VII. and VIII. above.

§2. There is still widespread misconception both as to the causes of inequality and as to how far they are remediable. Class distinctions, mainly based upon large differences of income, are still regarded by many as so integral a part of the natural order of things, as to require neither explanation nor defence. Further, it is still imagined by many that inequalities of income coincide broadly with inequalities of merit. "Money," says one of Meredith's characters in *Diana of the Crossways*, "is a rough test of merit. It is our only general test."

Members of the "comfortable classes" in particular are apt to compare the "successful" with the "unsuccessful" men of their acquaintance, and to conclude that inequalities of income are sufficiently explained by the fact that some possess in a larger degree than others those qualities which bring "success in life," and which are assumed, by most of the successful at least, to be meritorious. This, of course, is a very shallow view. If, indeed, we take a group of men who start fair in all respects except personal abilities, and if we neglect the factor of luck, it is approximately true. But in reality most of the larger inequalities of income are due to the fact that men do not generally start fair in the pursuit of income, and that, even when they do, other important handicaps develop in the course of life's journey. The notion that inequalities coincide with merit, or even with personal ability, is especially fallacious where income from property is concerned. Yet there are many, as Professor Cannan wrote in 1905, who still "think that Mr. Carnegie[1] and the Duke of Westminster are" not only among "the thriftiest men alive, but also that they are very wise."[2]

The idea that a large amount of inequality is inevitable is also very common, and is mixed up in many minds

[1] For "Carnegie" now read "Rockefeller."

[2] *The Economic Outlook*, pp. 241–242.

with various confusions of thought. The chief of these confusions is a failure to distinguish between *the fact* of inequality and *the causes of the fact*, and this in turn is due to a failure to analyse these causes correctly. Thus Canon Temple, in laying the foundations of economic knowledge in the minds of the schoolboys at Repton, informed them that "if you take a large number of people, with varying abilities, but not very varying selfishness, and put them to live together for several generations, the result will be the accumulation of wealth in comparatively few hands."[1] And Professor Pareto, who, as a professional economist, has less excuse for not going deeper, says "it would be useless to have recourse to a division of goods, in order to establish equality of fortunes. After a short time the inequalities, which had been destroyed, would reappear. Equality could only be maintained by periodic redistributions at short intervals."[2]

Such statements amount to no more than saying that, if the present fact of inequality is suddenly removed, while the causes which have produced it in the past are left in operation, the fact of inequality will reappear in the future. It is equally true to say that, if we bale out a leaky boat, it will continue to let in water. But this throws no light either on the causes of the leak, or on the practical possibility of repairing it.[3]

§3. Though at first sight simple enough, the conception of a cause of inequality is not free from difficulty. Many classifications of such causes are possible, and it is important to choose one, which shall be both true and instructive and also practically useful. Generally speaking, when we say that one fact is a cause of another fact, we simply mean that, if the first fact were other than it

[1] *Repton School Sermons*, pp. 171–172.
[2] *Cours d'Economie Politique*, II., p. 360.
[3] Compare Ely, *Property and Contract*, I., pp. 56–57.

is, the second fact also would be other than it is. If, however, we are studying the causes of the second fact with a view to the possibility of modifying them, it is important to consider two further questions; first, the practical possibility of the first fact, which we recognise as a cause of the second, being other than it is, and second, if this practical possibility exists, the nature of the alternative state of affairs. Failure to consider the first question may lead us to make statements which, though true, have little practical significance; failure to consider the second may lead us to make statements which are ambiguous.

The first point may be illustrated thus. If a drunken man has a fall, it is true to say that his fall was caused by the law of gravitation. But such a statement has little practical significance, since the law of gravitation must be regarded as unchangeable, at any rate by human agency. It is often equally true to say that his fall was caused by the fact that he was drunk, and this statement *has* practical significance, since drunkenness is not unavoidable. The second point may be illustrated thus. If a politician says that free imports are a cause of unemployment, his statement, quite apart from its truth or falseness, is ambiguous, for it does not define the alternative policy by means of which unemployment is to be diminished. An infinite variety of impediments to imports can be devised, but few politicians would assert that *all* of these would cause less unemployment than free imports. Consider, for example, a tariff restricted to prohibitive import duties on all raw materials required for home industry, which could not be produced at home.

It follows that it is not worth while to insist on "human selfishness," in the sense of the normal pursuit by most individuals of the economic interests of themselves and their families, as a cause of the inequality of incomes.

The possibility that we should all abandon completely the pursuit of self-interest and agree, not only to work hard, but to "share and share alike" in the results of our work, though an occasional theme for writers of imaginative literature, is hardly less remote than the possibility that the law of gravitation should be suspended.[1] Indeed it is perhaps not much more to be desired. The suspension of the law of gravitation, even for a few minutes, would wreck the physical universe, and strong grounds can be found for the belief that, "if people with one accord left off doing what paid, we should all be dead at the end of six months."[2] What, however, is both practical and desirable, is to modify the material and moral conditions under which self-interest is at present pursued, so as to secure from the pursuit the maximum social advantage.

Again, it does not advance matters much to say that the cause of all inequalities is "the capitalist system." For great inequality has been, and still is, found in "pre-capitalistic societies,"[3] and would still be found in certain of the economic systems, by which it has been proposed to replace our present arrangements. Only those who can formulate a clear-cut alternative system, under which there would be no inequality at all, can logically regard the "capitalist system" as the cause of all existing inequalities. One of the few to adopt this standpoint is Mr. Bernard Shaw, who *defines* socialism as a state of affairs in which all individual incomes are equal. But this treatment of the matter is not very convenient or illuminating. It is better to start from the position that existing inequalities, since they arise under the existing

[1] It may, however, serve as an attractive toy for pure theorists. See the remarks of Professor Pigou, *Economic Science in Relation to Practice*, pp. 14–15, and Pantaleoni, *Pure Economics*, pp. 9–10.

[2] Cannan, *Economic Outlook*, p. 176.

[3] Compare Nicholson, *Principles*, I., p. 231.

economic and juridical systems of modern societies, are presumably the effects of certain characteristics of these systems, and to go on to a detailed examination of these systems from this point of view.

Again, it does not seem very useful, or even generally true, to say, as Professor Nicholson does,[1] that freedom of contract is a cause of inequality. Once more one asks, what is the alternative, under which inequality would be smaller ? Historically, restriction of freedom of contract has frequently kept down wages and probably increased inequality, and Professor Nicholson himself remarks that, under a slave economy, inequalities of property, including slaves, were " still more startling " than those which are found under substantial freedom of contract. In civilised countries to-day it would be easy to suggest various restrictions on freedom of contract, some of which would be likely to increase and others to diminish the inequality of incomes.

§4. The classification which best combines brevity with accuracy is that of Professor Taussig, who reduces the causes of inequality to two, " inborn differences in gifts, and the maintenance of acquired advantages through environment and through the inheritance of property."[2] But to make this a complete account of the matter, we need to understand the word " environment " in a very wide sense, so as to include all causes of unequal opportunities to obtain income, except the inheritance of property. For our present purpose, it will be better to take a more extended classification. We have seen that income is derived from four main sources, work, property, civil rights, and private gifts.[3] The relative size of individual incomes, that is to say the extent of inequality, depends therefore upon three factors,

[1] *Principles of Political Economy*, I., pp. 221 ff.
[2] *Principles of Economics*, II., p. 246.
[3] See Part III., Chapter III. above.

first, the relative size of the total incomes from the four main sources just mentioned; second, the distribution among different individuals of the total income from each of these four sources; third, the extent to which particular individuals obtain income from more than one of these four sources. The first of these three factors has been discussed at some length, and the third has been briefly touched upon, in Part III. of this book. The second will be discussed, in some of its aspects, in the following chapters.

CHAPTER II

Inequality of Incomes from Civil Rights and Private Gifts.

§1. Income from civil rights may, in the main, be regarded as a part of what is sometimes called Social Provision. The old Poor Law was in this country the historic germ of Social Provision, and its remains are to be classed under this heading still, though these have become relatively unimportant compared with other modern developments, which embody quite different principles.

Modern governments make Social Provision in various ways, many of which resolve themselves into the laying down of certain minimum standards of economic attainment, below which no citizen is legally allowed to fall.[1] Six main types of Social Provision, as found in this country, may be briefly distinguished. The first consists of the legal regulation of contracts of employment in matters unconnected with the payment for work done. Regulations under the Factory Acts are an example of this type. The second type consists of the legal regulation of contracts of employment as regards the payment for work done. Thus the manner of payment may be regulated, as by the Truck Act, or minimum rates of payment may be determined and legally enforced through such machinery as that of the Trade Boards Act. The

[1] For a defence of the policy of the National Minimum in the light of first principles, see Pigou, *Wealth and Welfare*, pp. 393–8, and compare Webb, *Socialism and the National Minimum*.

third type consists of the legal addition to contracts of employment of an obligation on the employer to make certain payments for the benefit of the worker in certain circumstances, which payments, however, are not for work actually done. Examples of this type are the employers' liability under the Workmen's Compensation and Employers' Liability Acts, and their contributions under the Health and Unemployment Insurance Acts. The fourth type resembles the third, except that the obligation to make a payment rests upon the worker and not upon the employer. An example of this type is the workers' contribution under the Health and Unemployment Insurance Acts. The fifth type consists of payments made from public funds, in connection with contracts of employment. An example of this type is the State contribution under the Insurance Acts. The sixth type consists of payments from public funds, without reference to contracts of employment. Examples of this type are Old Age Pensions, War Pensions, expenditure on education and, though governed by different principles, Poor Relief.

Benefits received by individuals under the fifth and sixth types are obviously income from civil rights. Benefits under the first and second obviously are not. Benefits under the first are not income at all. Benefits under the second are income from work. Benefits under the third and fourth types are on the border line between income from work and income from civil rights, but may here be conveniently included in the latter. A few simple changes in modern legislation would make large readjustments as between the third, fourth, fifth and sixth types. For example, a provision under which workmen's compensation was payable, not by employers as at present, but out of the public funds, or a provision under which the employers' contribution to health insurance was abolished and a corresponding contribution from

public funds substituted for it, would increase the importance of the fifth type relatively to the third. A provision under which a contribution from public funds was substituted for the workers' contribution to health insurance would increase the importance of the fifth type relatively to that of the fourth. Or again, a provision under which the medical benefits of the health insurance scheme were given either free or below cost price, by means of a subsidy from public funds and without reference to any contract of employment, would be an extension of the sixth type at the expense of the third, fourth, and fifth.

§2. It would appear that the intention in the mind of the modern legislator is that income from civil rights should be distributed in rough accordance with need. The intention has been to call into being a body of new law to begin to redress the balance of the old, in which the scales were so heavily weighted in favour of inequality.[1] Most income-bearing civil rights make greater additions to the incomes of the poor than of the rich, and thus tend to reduce inequality. The extent to which inequality will be reduced depends also, of course, on how the funds are raised, out of which the income from civil rights is paid. The greater the extent to which these funds are raised by taxation of the rich, the larger, other things being equal, will be the effective transfer from rich to poor.

Looked at from a slightly different angle, the aim of the modern legislator has been to diminish the insecurity of working class life, and to modify the situation, in which the majority of the population were dependent merely on their wages, supplemented only by such small

[1] Such modern legislation is an example of the fact that political equality is apt to beget a movement towards economic equality. Compare Part I., Chapter I., above, and also Matthew Arnold's prescient essay on *Democracy*, republished in his *Mixed Essays*.

individual savings as were practicable, by the benefits provided by certain voluntary associations and, in the last resort, by poor relief and private charity. The aim has been to provide this majority with other sources of income, which shall expand automatically at times of stress and difficulty, such as sickness, disablement, unemployment and old age. It cannot be said that this aim has yet been satisfactorily realised, but a notable beginning has been made.[1]

§3. Many proposals are in the air for advancing further along the same path, and a few of those, which have recently been put forward in this country, may be briefly noticed by way of illustration.

The present position of the Health and Unemployment Insurance Acts is obviously unstable. It is proposed by some to introduce funeral benefit into the Act, and by others to increase and extend the existing benefits in other directions. Some propose to increase the contributions levied on employers and workers; others propose to abolish these contributions altogether, especially in the case of health, and to throw the whole cost on public funds.[2]

Extensions are proposed in the present Old Age Pension Acts in the direction of increasing the pension, lowering the qualifying age and raising, or even abolishing, the existing maximum income limit.[3] Pensions are also

[1] For a discussion of the extent to which modern insurance schemes may be regarded as providing a substitute for private property, see Ely, *Property and Contract*, I., pp. 332 ff.

[2] In the opposite direction is the proposal that, especially as regards unemployment, provision for maintenance should be made by organisations of employers and workers in the industry directly concerned, the State neither contributing to the cost, nor controlling the administration. This proposal would involve a restriction of income from civil rights, and the substitution of income from private gifts, or, under an extended form of contract, from work.

[3] See the *Report of the Departmental Committee on Old Age Pensions*, 1919. (Cmd. 410). Universal pensions at a certain age are no new idea. Tom Paine, in his *Agrarian Justice*, in 1789 advocated pensions

proposed for widows with young children, "such pensions to be provided by the State and administered by a Committee of the municipal or county council wholly unconnected with the Poor Law."[1] A still ampler scheme is that of Mr. Dennis Milner, who suggests[2] that a "pool" should be formed by a general levy of twenty per cent. on all incomes, and that out of this pool 9s. a week should be paid to every member of the community, children included. This idea has the merit of simplicity, if no other.

These proposals have been rapidly enumerated, for purposes of illustration. In deciding on their relative merits and demerits, it is necessary to bear in mind that their effects will vary, both according to the methods by which the necessary funds are raised and the way in which they are expended. As regards effects on production, it has been noted above[3] that in principle a sharp distinction can be drawn between the provision of benefits, on the one hand, for those whose productive efficiency is incapable of appreciable increase, such as old age pensioners, and, on the other hand, for "adults in the early stages of sickness or unemployment and the young in general."[4] In practice this distinction is sometimes apt to be blurred, owing to transfers within families. It may be presumed, for instance, that a large part of widows' pensions would be spent in ways that would

of £10 a year for all who reached fifty years of age, "to enable them to live without wretchedness and go decently out of the world." He proposed also that a national fund should be established by taxation, out of which £15 should be paid to every person reaching the age of twenty-one. For an account of these schemes see Maitland *Collected Papers*, I., pp. 148–9.

[1] These are the terms of a resolution moved and widely supported in the House of Commons on April 9th, 1919. See also the publications on this subject of the National Union of Societies for Equal Citizenship.

[2] *Schemes for a State Bonus. A Rational Method of Solving the Social Problem.*

[3] Part III., Ch. IV., § 3.

[4] Pigou, *Wealth and Welfare*, p. 363.

improve the health and efficiency of their children. Similarly, old age pensions to some extent relieve younger relatives of contributions to the maintenance of the pensioners.

But, looking at the matter generally, there can be no doubt that there is scope for a judicious extension, upon a large scale, of income-bearing civil rights, which will both reduce inequality, proportion income more nearly to need, and react favourably on production.

§4. As regards the distribution of income from private gifts, it does not seem possible to generalise, beyond remarking the probability that the inequality of incomes from this source will usually rise and fall with the inequality of incomes in general, and that private gifts will do little, if anything, to reduce this general inequality.

CHAPTER III

INEQUALITY OF INCOMES FROM WORK.

A. Causes of Inequality.

§1. The causes of the inequality of incomes from work have been discussed by many economists, beginning with Cantillon and Adam Smith.[1]

The amount of any individual's income from work depends upon the amount, and the value per unit, of the work performed. The inequality of incomes from work depends, therefore, partly upon differences in the amount of work performed by different individuals and partly upon differences in the value of different kinds of work.

The differences in the amount of work performed by different individuals depend partly on the choice of the individuals concerned, and partly on other causes. Some persons, capable of a normal amount of work, choose to do little or none, because they have incomes sufficient to maintain them from other sources, whether property, civil rights, or private gifts. It was to this class that Mr. Lloyd George was picturesquely referring, when he

[1] Compare, in chronological order, Cantillon, *Essai Sur La Nature de Commerce*, Part I., Chs. VIII.–IX., Adam Smith, *Wealth of Nations*, Book I., Ch. X., Mill, *Principles of Political Economy*, Book II., Ch. XIV., Marshall, *Principles of Economics*, Book IV., Ch. VI. and Book VI., Chs. III.–V., Taussig, *Principles of Economics*, Vol. II., Chs. 47 and 48, and Cannan, *Wealth*, Ch. XII. It is remarkable how early substantial truth was attained in this branch of economic theory, and how little later writers have had to modify the conclusions of their predecessors.

remarked some years ago that "we have too large a free list in this country." Again, during any given period there are several classes of persons who do little or no work, owing to causes independent of their own choice. Such causes include, in the first place, old age or extreme youth, sickness or physical or mental incapacity; in the second place, various imperfections in our economic organisation, which result in involuntary idleness in the form of unemployment; in the third place, in most civilised countries, various legal prohibitions, on grounds of public policy, of work by certain classes of the population, such as children below certain ages and mothers immediately after childbirth.

Further, among those who do a more or less normal amount of work, special legal enactments or collective agreements between employers and trade unions limit the hours of work in particular occupations. Under this head, there is a strong tendency to reduce the hours of work in modern industrial communities. The longest hours are now generally worked by the worst paid and least organised workers on the one hand, and on the other in various comparatively well paid occupations, where the worker is more or less his own master, but where leisure is apt to be undervalued in comparison with money. Again, different workers in the same occupation often perform very different amounts of work in the same time, especially when payment is based upon output rather than upon time occupied. It is more difficult to compare the amounts of work performed in a given time by workers in different occupations, or even in different branches of the same occupation, but, whatever method of comparison be chosen, there is no doubt that the amounts of work done by different individuals differ very greatly.

§2. The differences in the value, per unit, of different kinds of work depend upon differences in the demand for,

and in the supply of, different kinds of work.[1] Conditions are conceivable, under which the value of all kinds of work would be equal, but in the actual world no such equality is found. The chief reasons for this are as follows.

§3. Taking first the demand side of the problem, we find that changes are continually taking place in the relative demand for different commodities and services. Some of these changes act directly through the tastes, or relative incomes, of consumers, others indirectly through changes in methods of production, and hence in the demand for different sorts of work, machines and materials. In other words, some changes in demand are in respect of consumers' goods, others in respect of producers' goods. Again, some of these changes in demand are more or less temporary fluctuations, others are of a more continuous and permanent character. In all cases an increase in the demand for one kind of work relatively to another will, at any rate for a time, increase the value of the former kind of work relatively to that of the latter. Further, even if no changes ever took place in relative demand, the demand would be greater for some kinds of work than for others and, unless the supply of different kinds of work could adjust itself to these differences, differences of value would result.

§4. The supply side of the problem is more complicated. In the first place, it is not merely the relative money income obtainable in different occupations, which determines their relative attraction for workers seeking employment in them. Other important elements in attractiveness are the general nature of the work, its agreeableness or disagreeableness, the social esteem in which it is held, the prospects which it is thought to offer of exceptional

[1] It should not, of course, be overlooked that much unpaid work is still performed in modern communities, *e.g.*, the very important household work of women in their own homes.

success, or security of employment, and its supposed chances of sickness or accident. If all workers were free, at the beginning of their working life, to choose any occupation, we should expect, apart from changes in demand, to find average individual earnings in different occupations over a year, or other sufficiently long period of time, roughly proportionate to current estimates of the relative attractiveness of the different occupations. Such estimates are, of course, liable to error. Individuals are apt to miscalculate chances, and in particular their own chances of securing the exceptional prizes of an occupation on the one hand and of escaping unemployment, sickness and accident on the other. In any case, however, differences in the attractiveness of different occupations are sufficient to account for considerable differences in the value of different kinds of work.

But a more important cause of such differences in value is that all workers are *not* free, at the beginning of their working lives, to choose any occupation. In order to enter certain occupations a long and expensive training is necessary, involving the expense of maintenance during training, which is beyond the means of the majority of workers. These occupations are partially barricaded by high costs of entry, and according as these costs of entry are relatively large, the number of workers able to enter the occupation in question is relatively small, and the value of the work performed is relatively high. This is the case in most of the "professions." It also follows that there is a great concentration of workers in occupations where the costs of entry are very small or non-existent, and that the value of work performed in these occupations is relatively very low. This is the case with what are commonly known as the unskilled occupations. Skill, however, is a relative term. A clerk's work is skilled where the majority of workers is illiterate, but becomes unskilled when, through improvements in educa-

tion, few are unable to read and write. Where, as in most modern communities, freedom in the choice of occupations is greatly restricted, owing to the lack of educational facilities necessary to secure such freedom, particular occupations, or groups of occupations of about equal attractiveness, become largely hereditary. This fact is a further cause of inequality in the value of different kinds of work, since, the poorer any section of a community is, the higher, generally speaking, is its birth-rate. Such differences in birth-rates cause a further increase in the number of workers in occupations, where the value of the work performed is already relatively low, and this increase makes its value relatively lower still.

§5. In addition to lack of educational facilities, there are two other causes which may raise the relative value of work performed in certain occupations. The first of these causes is certain, the second is hypothetical. The first is deliberate restriction of numbers, enforced by the workers already in the occupation. Restriction of this kind implies an effective degree of organisation among these workers. It is illustrated by trade union rules limiting the number of apprentices or learners. It is a form of monopolist action, which depends for its continued success upon the power of the monopolist organisation to control a sufficient number of the workers concerned, and to adapt itself to changes in productive processes, especially the introduction of machinery, which may diminish the demand for skilled and well organised workers and increase the demand for less skilled and probably less well organised workers.

The second cause, which is hypothetical, is the possibility that in some occupations there is needed for success an exceptionally high degree of natural ability, which training and education alone cannot give. It is sometimes suggested that ability to manage large businesses is a case in point. If there be such cases, complete

freedom of entry into such occupations would not be sufficient to reduce the value of work performed in them to a value proportionate to the relative attractiveness of such work. But, in view of the failure of all modern communities to secure even approximate freedom of entry into all occupations, it is impossible at present to test the truth of this hypothesis. Moreover, the exceptionally large incomes which some workers might secure, even if entry to all occupations were completely free, might be due to the exceptional amount of effective work which they performed, and not to any need for exceptional ability in all members of their occupation.

§6. Finally, in addition to differences in the value of different kinds of work, we must notice that at any given time there are often large differences in the value of the same kind of work. Such differences are greatest between different countries, but in this case they are not so great as they appear at first sight, the comparative value per unit being based upon different units, that is to say upon different amounts of work, according to the general productive power of different countries. In so far as the differences in value are real, they are due to the fact that, generally speaking, workers, capital and commodities all move less freely from one country to another than from one part of the same country to another.

But differences in the value of the same kind of work are also found within the same country. These are sometimes due to the methods of payment for work, especially when payment is based upon time spent rather than upon output. They are also due to the lack of mobility of certain classes of workers from one part of the country to another, to lack of trade union organisation, to ignorance of the economic conditions prevailing at a distance from their own homes, and to the alternative local employments which they are free to enter. These considerations largely account for the differences in the

earnings of English agricultural labourers in different counties, though part of such differences is to be accounted for by differences in efficiency, as measured by the amount of work performed. To some extent also local differences in the money value of the same kind of work depend upon local variations in the cost of living, but these differences are likely to be greatest, in contrast to the case just considered, when the mobility of the workers concerned and their knowledge of economic conditions in other parts of the country is greatest.

§7. From the point of view of obtaining an income from work, "it is an economic advantage to be born a boy rather than a girl."[1] This fact has long been common knowledge, but the reasons for it were not clearly set out by economists until a few years ago. "The problem of women's wages," as it has been vaguely called, is however, only a particular case of the general theory set out above.[2]

The number of women who do no useful work, either paid or unpaid, is probably larger in most civilised countries than the corresponding number of men. Though it was diminished temporarily during the war, the "free list" is particularly large in this country among unmarried women of the middle class. In other countries, such as France and Italy, it appears to be considerably smaller.[3]

[1] Cannan, *Wealth*, p. 202.

[2] It is so treated by Professors Cannan and Taussig in the passages referred to in the footnote at the beginning of this chapter. For interesting, but less satisfactory, discussions, compare Nicholson, *Principles of Political Economy*, III., pp. 158–166, Smart, *Studies in Economics*, pp. 107 ff, Webb, *Problems of Modern Industry*, pp. 46 ff. Many economists, including Marshall, leave the question practically undiscussed. See also the *Report of the War Cabinet Committee on Women in Industry* (Cmd. 135), 1919, and especially the Minority Report by Mrs. Sidney Webb.

[3] A Frenchwoman of the middle class, on whom I was billeted during the war, said to me: "I understand that in England the girls cannot cook, but spend all their time playing lawn tennis." The

But the chief reason why women's incomes from work are, on the whole, considerably smaller than men's is because the value of their work is less. This, again, is chiefly due to the fact that the field of employment open to women is very much smaller than that open to men, or in other words, that in a great many occupations, including some of the best paid, there is little or no demand for the work of women. This relative restriction of the field of employment for women is due to a number of causes, such as legal restriction, the inertia or prejudice of male employers, the prejudice of consumers, both male and female, and the resistance of many of the organisations of male workers, both manual, clerical, and "professional." It follows that in those occupations, which are, in law and in fact, open to women equally with men, there is a relatively large supply of women workers and the value of their work is in consequence relatively low. In some of these occupations, such as the care of young children, women are more efficient than men, and men, owing to the relatively large field of employment open to them, do not compete for employment there. In others men are more efficient than women, but women, owing to the relatively small field of employment open to them, *do* none the less compete for employment there, though, being able to perform less work than the men, their pay is generally lower.[1]

difference in habit is, no doubt, partly due to the fact that corresponding occupations are less well paid in France or Italy than in this country, and that there is, therefore, less income available for paying domestic servants. But it is also partly due, in my opinion, to other causes.

[1] A full enquiry into the relative efficiency of men and women in different occupations would probably yield some surprising results. For example, I am informed that it was found during the war that women 'bus conductors collected, on an average, considerably less in fares per shift than men 'bus conductors on the same routes. It is easy to imagine cases, in which an equally surprising superiority of women over men would be disclosed. The superiority of women to men as inspectors under the Factory and Trade Boards Acts would, I think, be vouched for by most employers, who have been inspected by members of both sexes.

There are other reasons, of less importance than that just considered, why women's incomes from work are generally smaller than men's. One of these is that the general level of education, and in particular of vocational training, among women is even lower than among men, with the result that there is an even greater relative concentration of women than of men in occupations where little or no education is required and where, owing to the exceptionally large supply of workers, the value of the work performed is exceptionally low. Another is that the trade union organisation of women is still greatly inferior to that of men, with the result that individual women workers are often paid less than the value of their work. This last fact is connected with another, which is seldom mentioned by economists, though it is of great economic and social importance. In some occupations women have special opportunities, and in a few they are practically compelled by custom, to add to their incomes by the sale of sexual gratification to men. The fact that they can obtain additional income in this way, added to their inferiority in bargaining power as compared with their employers, tends to reduce their earnings in these occupations. The relatively small incomes obtainable by women from most sorts of work undertaken by them increases the number of women willing to obtain either all or part of their income by the sale of sexual gratification. In a community where the total incomes of women from other sources were equal, on the average, to those of men, and were fairly equally distributed, it might be that this sale, if it continued to exist, would be at least as much by men to women, as by women to men.

The fact that in "old" countries, from which there is net emigration, there are more women than men, is not of great importance in increasing the number of women workers relatively to men workers. For the

greater part of this surplus consists of elderly women and is accounted for by the greater average longevity of women than men.[1] Though men are physically stronger, women are constitutionally tougher. A smaller proportion ot women than of men of working age undertakes paid work. A general rise in women's earnings might attract more women from unpaid household work, or even from idleness, to paid work, and, if this happened, the rise might be less than it otherwise would be, though an incidental result would be an increased demand for domestic service in the households, from which women had been attracted to paid work.

The local variations in the demand for women's work, and hence in the earnings obtainable by women, are considerable, since the industrial character of different localities is mainly determined by the men's occupations. Thus the demand for women's work in textile districts is much greater than in mining districts.

It may be added that under English law women have always been free to enter into contracts for their own labour, though, before the first Married Women's Property Act of 1870, a husband might " reduce into possession " the rights of his wife in respect of such contracts made by her, and thus obtain possession of her income from work.[2]

B. *Some Methods of Reducing Inequality.*

§8. We may now consider, in the light of the preceding discussion, certain practicable methods of reducing the inequality of incomes from work, consistently with the maintenance, and, wherever possible, with the increase,

[1] In the United Kingdom in 1911 the surplus of females was 1,179,276 and the number of females to every thousand males was 1,068. This figure had been steadily rising since 1821, when it stood at 1,036. But in 1811 it was 1,054 and in 1801, 1,057. It will be temporarily raised by male casualties in the war, but not more than it might have been raised by a big wave of emigration, if there had been no war.

[2] See Anson, *Contract*, pp. 146 ff.

of the productive power of the community. This inequality, we have seen, depends upon two other inequalities, first, inequality in the amount of work done by different individuals, and, second, inequality in the value, per unit, of different sorts of work. It is possible that a reduction of the inequality in the amount of work done by different individuals might increase the inequality of incomes from work and still more the inequality of total incomes. But this sort of reduction is likely to be unimportant in its practical effects.

On the other hand, reduction of the inequality in the value of different kinds of work would probably decrease both the inequality of incomes from work, and, other things being equal, the inequality of total incomes. It is, therefore, worth while to consider in some detail certain methods by which a reduction of this inequality in the value of different kinds of work could be brought about, without damage to productive power.

§9. Certain causes of this inequality of values were seen above to arise from differences in the demand for different kinds of work. Some temporary differences in demand would disappear with a reduction in the violence of industrial fluctuations, a subject which is too complicated for discussion here.[1] Of those differences in demand which are now more permanent, some depend upon the inequality of total individual incomes, and would be reduced by a diminution of this inequality, while the influence of others would be reduced by any change, which enabled the distribution of workers between different occupations to adjust itself more readily to such differences in demand.[2]

[1] See, however, Robertson, *Industrial Fluctuation*, pp. 241 ff.

[2] Compare Hobson (*Work and Wealth*, p. 169), "the enormous fees, which specialists of repute in the law or medicine can obtain, depend partly upon the inequality of education and social opportunities that limits the supply of able men in these professions, partly upon other inequalities of income that enable certain persons to afford to pay

This brings us to those causes of the inequality of values, which arise from differences in the supply of different kinds of work. The most important of these causes were seen to be, first, the differences in attractiveness, apart from money earnings, of different occupations, and, second, the lack of freedom of the great majority of workers to choose, at the beginning of their working lives, between different occupations. We may now consider in turn these two causes.

§10. The differences in attractiveness of different occupations may be reduced in various ways. They will be reduced by a proportionate reduction of the hours of work in all occupations, and still more by a greater relative reduction of hours in the least attractive occupations. For the latter are generally those in which the hours worked are the longest, and in which a reduction of hours seems least likely to cause a reduction of output.

Differences in attractiveness will also be reduced, other things remaining equal, by any cause, such as a reduction in the violence of industrial fluctuations, which reduces the chance of unemployment in the more irregular occupations, or by any cause which reduces the evil effects of unemployment, or by any cause which reduces the chance of sickness or accident in the more dangerous occupations, or by the introduction of machinery to do the heaviest and dirtiest forms of work, or by an increase in the relative social esteem, in which the occupations now least esteemed are held. Such relative esteem depends largely on relative income. If the incomes of navvies or agricultural labourers came to be generally

such fees." But very high fees might still be offered by associations of individuals, even if the inequality of individual incomes was greatly reduced. Further, some of the largest incomes, in the theatrical profession, for example, and especially the cinema branch, depend upon a large aggregate demand for amusement by a large number of persons, the majority of whom are not rich. Charlie Chaplin thrives upon a cosmopolitan mass demand.

larger than those of clerks, teachers, or civil servants, their work would probably soon be thought to be of a higher class. " As it is," Mr. Hartley Withers suggests, " a great cricketer is a much bigger man in the eyes of the public than a great politician or a great thinker. . . . Bodily prowess in games now opens the shortest way to the respect and admiration of men. A very slight change of mental habit would give bodily prowess in work its right position."[1] But differences in the attractiveness of different occupations, though capable of much reduction, are likely always to remain appreciable.

§12. The most important direction for practical reform, however, is to increase the ability of the great majority of workers, at the beginning of their working lives, to make a freer choice than at present between different occupations. The greater the degree of freedom attained in this respect, the more will the value of different sorts of work come to depend upon the attractiveness of the work, in such a way that the least attractive work will tend to be the best paid.[2]

The main instrument for increasing this freedom is better and more equally distributed facilities for education and training. In the conditions of modern communities, such facilities will need, for the most part, to be freely provided by public authorities and should be available to all who show signs of being likely to profit from them. The extent of the economic changes which would be brought about by large improvements in education is seldom realised.[3] With their direct and indirect

[1] *Poverty and Wealth*, pp. 113–4. But it is much less difficult to decide who is a great cricketer or boxer, than who is a great politician or thinker.

[2] Compare Cannan, *Wealth*, p. 217, and Lowes Dickinson, *Justice and Liberty*, pp. 51–2 and 62 ff.

[3] Various governments "have taken up education from motives which are complex and difficult to analyse, but it may be said quite safely that none of them have ever been moved by a desire to cheapen

effects upon productive power we are not here concerned, except to notice that these effects would undoubtedly be beneficial.[1] But their effects in reducing the inequality in the value of different kinds of work would be profound. The existing tendency for workers, especially of the younger generation, to move from the worse paid to the better paid occupations would be strongly accelerated. It has been said, with some truth, that "what makes social classes is not so much competition as the want of it."[2] More precisely, it is too much competition in the worse paid, and too little in the better paid, occupations. There is a type of paradox, familiar to the makers of index numbers, one form of which is that the general rate of wages may be rising, though all particular rates of wages may be falling, the explanation being that wage earners may be moving in large numbers from the worse paid to the better paid occupations, while the demand for the lowest paid labour may be simultaneously declining. Such a paradox illustrates the effects which im-

the products of the better class employments' by multiplying the persons qualified to pursue them." Cannan, *Wealth*, p. 201.

[1] There must, of course, at any given time be a limit to socially profitable expenditure on education, but it seems clear that we are at a great distance from this limit in modern communities generally. For, as Professor Pigou points out (*Wealth and Welfare*, pp. 355 ff.), the marginal social return obtainable from wise investments in human capital is necessarily greater than that obtainable from equally wise investments in material capital. And even if, by generous expenditure on education, we succeeded in bringing these two marginal returns to an apparent rough equality, it would still be possible that additional investment in human capital might be socially profitable. For the human factor is less calculable than the material and, as Marshall says (*Principles*, p. 217), "all that is spent during many years in opening the means of higher education to the masses would be well paid for, if it called forth one more Newton or Darwin, Shakespeare or Beethoven." The best distribution of expenditure between different sorts of education and training raises difficult practical problems, and there may be a danger, some day though not at present, of training too many doctors or too many teachers. The theoretical solution, of course, is that the marginal social returns from each sort of training should be equal.

[2] McGregor, *Evolution of Industry*, p. 190

provements in education might bring about in distribution, apart from effects on productive power. When the latter also are taken into account, we are likely to witness, not only an increase in the average income from work, but a still greater increase in incomes derived from all forms of work except those which are now the most highly paid of all. The situation of the worst paid occupations is at present abnormal. They are overcrowded because many workers have been trained for nothing better. As Professor Pigou points out, "the supply of casual and unskilled workers is filled out from the failures of higher classes and from the lads who have wasted their youth in uneducative employments. The number of people in these occupations is not, in fact, regulated by economic considerations in the ordinary way. Rather, unskilled labour of the lowest class constitutes a kind of reservoir, to which there is an entrance but no exit. There is, therefore, a permanent over-supply of work of this sort, and a normal earnings level permanently less than comparative efficiency warrants. Consequently a considerable rise might take place in the wages of low-grade unskilled occupations in general, without making any men from outside willing to come into them . . . The same consideration applies, though for somewhat different reasons, to women's low-paid industries."[1] A further effect of these low rates of pay is that improved processes, which might add considerably to the productive power of the community by economising labour, are not introduced, because the stimulus to their introduction, which the necessity of paying higher wages would provide, is not forthcoming. It is an important function of Trade Boards to provide such a stimulus here, in the same way as the Trade Union Standard Rate often provides it elsewhere.[2]

[1] *Wealth and Welfare*, pp. 331–332.
[2] Compare Webb, *Industrial Democracy*, p. 413.

The general effect, then, of improved education would be to increase what has been called " vertical mobility," in the sense of the mobility of workers from the worse paid to the better paid occupations. A particular form of vertical mobility which is of some interest is the movement from below into the ranks of the more successful business men. For here it is specially true that the earnings of a man of exceptional ability are due not only " to the exceptional training that his abilities have had, but to the neglect of the abilities of the greater part of the population, through lack of this training. . . . The business world is always crying aloud for brains."[1] In European countries at any rate, the tendency has been for most of the best brains to enter the professions and the public service rather than business. A special case of vertical mobility in private business is the movement of individuals from the ranks of employees into those of employers. The extent to which movement of this kind is likely depends not only upon education, which in any case tends to increase it, but upon the structure of different industries. It is likely to be least in industries where the units of organisation are large,[2] and greatest where they are small. Thus it is relatively great in the cotton industry[3] and in certain branches of the building industry.[4]

§13. Improved education will render monopolist action in restricting entry into any occupation less possible in

[1] Withers, *Poverty and Waste*, p. 170.

[2] Compare Pigou, *Wealth and Welfare*, pp. 255–256.

[3] Compare Chapman, *Economic Journal*, 1900, pp. 467–475, and *Journal of the Royal Statistical Society*, February, 1912.

[4] The small employer is a fact of common knowledge in the building trade, only a small amount of capital and training being necessary for a man wishing to start on his own. Many of these small employers are notoriously incompetent. I once attended a meeting of employers' and operatives' representatives in the building industry, when attention was drawn to the absence of one of the operatives, and it was announced that he had " changed sides " since the last meeting. This announcement was greeted with laughter, but without surprise.

the better paid occupations, and both less possible and less necessary in the intermediate occupations. In the worse paid occupations it has always been practically impossible. Trade union rules regulating entrance to an occupation aim, in substance, at the maintenance of certain ratios between the numbers in the occupation at different times, and the numbers in different occupations at the same time.[1] They are further based on the assumption that, in the absence of such rules, the number of those desiring to enter the occupation would be greater than the number who can enter under the rules laid down. In many occupations improved general education will so far diminish the supply of workers as to upset this assumption. Looking at the matter broadly, and assuming a large improvement in education, we may agree with Mrs. Sidney Webb that the necessary and sufficient condition for entry into any occupation should be the possession of a reasonable "qualification or certificate of competency . . . based in the main on practical tests of efficiency, physical, no less than mental, conducted under public authority by representative joint committees of the persons actually engaged in the occupation, together with education experts, open to all-comers, irrespective of sex, creed, class, or previous training."[2]

§14. The two most important methods of reducing inequalities, due to sex, in the value of different kinds of work, are improved education, which has already been dealt with, and the extension of the field of employment open to women. The only limits to this extension should be those, which will arise from the natural inferiority of women to men in certain occupations, in other words, to the capacity of women to obtain the qualifications suggested above. To increase women's field of employment,

[1] Compare Sanger, *The Fair Number of Apprentices in a Trade*, *Economic Journal*, 1895, and Webb, *Industrial Democracy*, pp. 453 ff.

[2] *The Wages of Men and Women, Should They be Equal?* pp. 45–46.

it will be necessary both to remove various legal and customary restrictions, especially in the professions, and to educate consumers and employers, including many public authorities.[1]

An improvement of trade union organisation among women workers is also very desirable and, as far as possible, the entry of women into the same trade unions with men engaged in the same occupation. The attempt to remove inequalities in particular occupations by insisting upon "equal pay for equal work," however interpreted, apart from improved education and trade union organisation of women, and still more apart from an extension of the field of women's employment, is likely, by actually reducing the latter field, to increase inequalities on the whole.

The supply of women workers, apart from those engaged in domestic work in their own homes, would tend to be reduced, relatively to the supply of men workers, by an increase in the income of mothers from civil rights,[2] and, to a slight extent, by a reduction in the surplus of women over men in the total population. Such a reduction would probably be caused by a reduction in infant mortality, since mortality among boy babies is greater than among girls. Again, an increase in the standard of comfort of men workers has often been found to reduce the inclination of the women of their families to work outside their homes.[3] In the opposite direction, tending to increase the relative supply of women workers, is the increase in the interests and activities of educated women outside their own homes, arising from the fact that fewer and fewer women are content that their lives should be

[1] "The opening of industrial occupations freely to both sexes" was advocated more than seventy years ago by Mill, *Principles of Political Economy*, p. 759. Compare the recommendations of the recent *Royal Commission on the Civil Service*.

[2] Compare Part IV., Chapter II., above.

[3] See Pigou, *Wealth and Welfare*, p. 30.

" an uninterrupted succession of pregnancies."[1] To impose legal limitations upon a married woman's right to work, except for a period immediately before and immediately after childbirth, does not seem either practicable or desirable,[2] but the receipt by a mother of income from civil rights might perhaps be made dependent on her not undertaking paid work outside her home. Many men hold the opinion that women in general are " by nature " economically less efficient than themselves. This, like the opinion that success in business requires exceptional natural ability, is at present a mere hypothesis. Its truth will only be able to be tested when the economic opportunities of the two sexes have been approximately equalised by the changes indicated above.

[1] Brentano, *Economic Journal*, 1910, p. 386.

[2] It has been proposed, however, by Mr. Rowland Kenny, in an outspoken article quoted bv Bechhofer and Reckitt, *Meaning of National Guilds*, p. 416.

CHAPTER IV

Inequality of Incomes from Property.

A. Causes of Inequality.

§1. In modern communities, the inequality of incomes from property is generally even greater than the inequality of incomes from work.[1] Nearly all families derive some income from work, but many derive none, or practically none, from property. The large property-incomes, moreover, are both larger and more numerous than the large work-incomes. The causes of the inequality of incomes from property have received very little direct attention from economists. Professor Cannan's treatment of this branch of economic theory, in the course of his article on the *Division of Income* in 1905[2] and in Chapter XI of his *Wealth* in 1913, though admittedly only brief and preliminary, still holds the field.

Most economists have been apt to take the institution of property, as it existed in their own time and country, very much for granted, and to treat it as one of the unchangeable factors at the base of all their theories. In America a distinction has even been drawn between "institutional economics," which takes account of variations, both actual and possible, in property and other social institutions, and "non-institutional economics," in which such variations are ignored, and some writers have been found, who defend the latter method against the

[1] Compare Pareto, *Cours d'Economie Politique*, II., p. 310, Pigou, *Wealth and Welfare*, p. 75, Watkins, *Growth of Large Fortunes*, p. 18.

[2] Republished in *Economic Outlook*, Ch. VII.

former.[1] But "non-institutional economics," if carried beyond a few elementary propositions, is likely to prove a sterile monstrosity. Sociologists and historians, on the other hand, have given much study to the origins and comparative forms of property, but most of their work is not of great importance for economists. Professor Ely's *Property and Contract* and Professor Underwood's *Distribution of Ownership*, however, both books by expert economists, contain much information which is of modern economic interest, though what they offer is chiefly the raw material of fact, rather than the finished product of generalisation.

§2. In modern communities at the present time the three *immediate* causes of the inequality of individual incomes from private property are, first, differences in the amounts of property received by different individuals by way of inheritance and gift, second, differences in the amounts of property accumulated by different individuals by way of saving, and third, the changes which take place, apart from the action of the respective property owners, in the value, both capital and annual, of different pieces of property.[2] Of these three causes it seems clear that, in general, the first is considerably the most important. The question of inherited property is postponed, however, to the next chapter.

Inequality of savings is due to individual differences both in the power to save and in the will to save. An individual's power to save is measured by his total income in excess of the bare necessaries of himself and his dependents, if any. His will to save depends upon his character and personal tastes, upon the comparative importance which he attaches to expenditure in the present and provision for expenditure in the future, and upon the rate of interest obtainable from various invest-

[1] *American Economic Review*, March, 1919 (Supplement), pp. 309 ff.
[2] Compare Cannan, *Wealth*, Chapter XI

ments open to him. The will to save will seldom equal, and will generally fall a long way short of, the power to save. In general, the larger any individual's income, the larger the proportion which he will save.

Negative saving, or the conversion by property owners of part of their capital into income, may be brought about in many ways. In an individual it is sometimes a sign of wisdom,[1] but more often of folly, or at least of misfortune. Decumulation on a large scale might considerably reduce the inequality of incomes from property, but it would also reduce productive power.[2] In spite of the old saying, "three generations from shirtsleeves to shirtsleeves," which under modern conditions is increasingly false, decumulation is likely in practice to be continually outweighed by positive accumulation through saving. And on the whole, "saving does not mitigate inequality arising from other causes, but aggravates it."[3]

Changes in income from particular pieces of property, independent of the action of the owners, are continually occurring. It is not only landowners, who, in Mill's phrase, "grow rich in their sleep." A recent grim enrichment was that of the shareholders in Courtauld's, the makers of mourning weeds, as the "roll of honour" lengthened on the battlefields. Other property owners likewise grow poor in their sleep, and others, again, grow richer or poorer by unintelligent buying and selling of property rights.[4] Professor Cannan argues that, in so

[1] Compare Fisher, (*The Rate of Interest*, pp. 120 ff.) and Cassel, (*Nature and Necessity of Interest*, pp. 147 ff.), who points out that, if the rate of interest falls below a certain point, there will be a strong tendency to buy life annuities instead of permanent investments.

[2] As to the precise significance of decumulation, see footnote to Chapter X., § 5 below.

[3] Cannan, *Wealth*, p. 186.

[4] It is a nice question of degree how far speculators can be said to derive their incomes from work, as distinct from the temporary ownership of property rights of fluctuating value. At one end of the scale, deliberate and intelligently directed speculation is clearly a form of

far as these fortuitous changes operate on property acquired by inheritance or gift, they are as likely to diminish as to increase inequality of incomes from property, but that, in so far as they operate on property acquired by saving, they are likely to increase this inequality.[1]

These three causes of the inequality of incomes from private property, namely, inequality of inheritances and gifts, inequality of savings, and fortuitous changes in income from particular pieces of property, are immediate causes, which arise within the framework of the capitalist system. A trenchant summary, substantially equivalent, is that of Professor Irving Fisher, who lays it down that the distribution of property "depends on inheritance, constantly modified by thrift, ability, industry, luck, and fraud."[2] But behind these immediate causes lie others which call for some discussion.

§3. Whatever the law of inheritance, short of a law prohibiting inheritance of property entirely, its effects on the inequality of incomes will depend upon the rest of the prevailing system of property law. One of the most important elements in this system is the law relating to land and other natural resources.

The importance of land, relatively to other forms of property, is smaller in modern industrial communities than in less developed countries, whether ancient or "new," but it is always considerable. "The concentration of the ownership of land in England and in Eastern Germany is a survival from the feudal organisation of society, just as the small size of landed properties in France is largely a result of the crash of feudalism in the Revolution."[3] Redistributions of land, carried out with

mental work; at the other end, casual and unintelligent buying and selling involves no appreciable mental effort.

[1] *Wealth*, p. 187.

[2] *Elements of Political Economy*, p. 513.

[3] Watkins, *Growth of Large Fortunes*, p. 65.

varying degrees of violence or legality, are continual throughout recorded history, from the strife of patricians and plebeians in ancient Rome, down to the French Revolution, the Irish and Australasian Land Purchase Acts, the Russian Revolution of 1917, and the resettlements that are still proceeding in various parts of Europe. Given a general break-up of the pre-existing economic system, such as has occurred in Russia, an uncompensated redistribution of property rights, aiming at substantial equality, is probably the soundest policy. Short of such a general break-up, it is probably better to aim at the same results with more caution and a greater tenderness for "established expectations."

§4. Again, as in the case of incomes from work, we find that on the average women's incomes from property are less than those of men. On the average, women acquire less property than men by inheritance and gift. Again, on the average, women save less than men, chiefly because, their incomes from all sources being smaller, their power to save is less.

The prejudice against the ownership of property by women, which was largely based on the belief that women were incapable of retaining property, is weakening in modern times. Dr. Watkins observes that "the proportion of the millionaires in Washington who are women, and thus presumably not active in the administration of productive wealth, is noticeably large."[1] Professor Ely notes that "in Massachusetts" in 1908-1910 "37.9 per cent. of the number and 26.7 per cent of the value of all estates probated belonged to women. In France apparently a still larger percentage of estates belonged to females. . . Apparently in England and Prussia women own a smaller percentage of estates than in America."[2] In England before the Married Women's

[1] *Growth of Large Fortunes*, p. 76.
[2] *Property and Contract*, I., p. 316.

Property Acts much income from property came to women, not directly, but indirectly through trustees. But this was more a matter of legal than of economic importance.

§5. We may now turn from private to public property, in the sense of the property of public authorities. For "distribution depends on public as well as private property," and "it is one of the great defects of current treatments of property that the concept public property has been inadequately treated by economists and publicists generally."[1]

The inequality of property incomes in any community depends, in part, upon the relative scope of public and of private property. The greater the scope of private property, the greater inequality is likely to be; the greater the scope of public property, the smaller inequality is likely to be. Two excellent illustrations are given by Professor Ely.[2] In the United States railways have always been private property, conducted by private enterprise; in several German States they have always been public property, conducted by a State department. Many great fortunes have been made from railways in the United States, but none in these German States. On the other hand, the United States Post Office has always been a publicly owned institution, managed by a State department, and no great American fortune is traceable to this source. But in Europe for a long while it was otherwise, and "the great postal magnates of the Continent . . . for nearly four hundred years were men who belonged to the family of Thurn and Taxis. . . . In 1460 one Roger von Taxis erected the first post office in the Tyrol. . . . In 1595 the family received as a feudal grant the imperial post office in the Spanish Netherlands. In 1601 the members of the family became

[1] Ely, *ibid*, I., pp. 107–8.
[2] *Ibid*, I., pp. 80–83.

imperial counts, and in 1686 they became imperial princes. About a hundred years later the family acquired by purchase four principalities. In 1803 the postal property and services of the family apparently commenced to decline because public authority began to encroach upon private management, and the family lost a number of the post offices in the Netherlands on the left bank of the Rhine. For this they had to have an indemnity and they received therefor a principality, and still another in 1867 for giving up further postal rights; then in the last-named year by giving up all rights still left they received nine million francs." They are now "one of the richest and most powerful families in Europe, and they became so by private property in the post office." But it may be added that their rise was only rendered possible by the further factor of inheritance, and that it was probably accelerated by saving and by fortuitous increases in the value of their property.

The influence of an increase in the scope of public property in reducing the inequality of property incomes is much weakened, when the public property is, in effect, subject to a private mortgage. Such a mortgage generally exists, when private property has been purchased by a public authority from private proprietors, or when public property has been created by means of a public loan subscribed by private investors. Moreover, even if a private mortgage of this kind is paid off by means of a sinking fund, the total amount of private property in the community is not necessarily reduced, since the holders of the public securities, which are paid off, will generally reinvest elsewhere. But the paying off of such a mortgage may increase the amount of true public property relatively to the amount of private property. In so far, however, as a public authority owns property free from private mortgage, the significance of the fact, from the point of view of distribution, is that such

property is not a source of individual property income at all, though it may be a source of public revenue.

B. Some Methods of Reducing Inequality.

§6. Methods of reducing inequality of incomes due to inheritance will be considered in later chapters. The inequality of savings may be slightly diminished by improving the facilities and increasing the inducement for saving by those with relatively small incomes. There is great scope for the further development, through Post Office Savings Banks and otherwise, of secure banking facilities for small savers. The British Savings Certificates, which originated as War Savings Certificates, are an interesting experiment in this direction. It is not desirable to diminish, but rather to increase, the amount of saving done by the rich, so long as they are permitted to retain their large incomes. In the future, perhaps, public authorities will do their own saving and will not need to pay interest to individuals, in order to secure a sufficient supply of this service.[1] But at present saving by individuals is essential to the maintenance, and still more to the increase, of productive power.

It is not, therefore, desirable to aim at reducing directly the inequality of private savings, though it may be reduced indirectly by a reduction in the inequality of total individual incomes. Nor does it seem practicable, apart from the possibility of regulating the evil effects of speculation, to aim at reducing directly the fortuitous changes in the value of private property. As regards

[1] This point was clearly put, though in language which now sounds old-fashioned, by Sidgwick, (*Miscellaneous Essays and Addresses*, pp. 244–245), " a Socialistic State would have to exercise abstinence, but it would not have to be paid for exercising it." It is not refuted by Professor Cassel's argument,(*Nature and Necessity of Interest*, pp. 171 ff.), that the right of the workers collectively in a progressive Socialist State to the " whole produce of their labour " *in any particular year* is incapable of being exercised.

the most desirable relative scope of private and of public property, this question has been deliberately excluded, on the ground of its magnitude, from discussion in this book. It seems clear, however, without any lengthy argument, that in old countries newly discovered natural resources of high value should not be allowed to become private property, and that in new countries many natural resources, especially those that are practically certain to increase in value, should not be allowed to become private property except for a limited and predetermined period, at the end of which they should revert to public ownership without any right to compensation.[1]

As regards land, so comparatively conservative an economist as Marshall is of opinion that, "if from the first the State had retained true rents in its own hands, the vigour of industry and accumulation need not have been impaired, though in a very few cases the settlement of new countries might have been delayed a little."[2] In a new country, from the point of view of checking the growth of inequalities, the chief duty of the Government would seem to be to play squatter, and to sit tight on property rights in the land. In many new countries, however, large inequalities are being prepared with deadly certainty by an inheritance law of the normal type operating, in an atmosphere of rapid development, on private property in land and other natural resources. The excuses of feudal origin, or of the sentimental halo which, in the minds of the owners at any rate, surrounds an "ancestral home" in an old country, are lacking here.

[1] There is much to be said for the view that all minerals should be public property. All gold discovered beneath the surface of the United Kingdom belongs to the Crown. If the same rule had applied to coal, inequality would certainly have been smaller and productive power would almost certainly have been no less. It is not the owners of mineral rights, who have shown enterprise in the development of the coal industry.

[2] *Principles*, pp. 802–803.

The tendency to inequality is stronger in new countries than at first sight might be supposed, owing to this handing over to first comers of rights, heritable in perpetuity, in natural resources.

It only remains to notice that the inequality of incomes from property, even more readily than the inequality of incomes from work, can be reduced by means of taxation.[1] The most important limit to the employment of such a policy is to be found in the reactions on production which are liable to result from heavy taxes.

[1] Compare Part III., Ch. VI., § 6 above.

CHAPTER V

Inequality and Inherited Wealth.

§1. The phenomenon of inherited wealth is at once very curious, very important and very much neglected. " For half a century and more, the rights and responsibilities of living men may be determined by an instrument which was of no effect, until the author of it was in his grave and had no longer any concern with the world or its affairs. The power of the dead hand is so familiar a feature in our law, that we accept it as a matter of course, and have some difficulty in realising what a very singular phenomenon it really is."[1] Under almost all systems of law, where the ownership of private property is concerned, the living are allowed to step into the shoes of the dead, either under wills or under various legal rules of succession. This is a very curious fact.

It is also a very important fact. We have seen that, within the framework of the capitalist system, the chief cause of the inequality of incomes from property is the fact that some persons receive much larger amounts of property through inheritance and gift than others, and that the effects of inherited property in maintaining the inequality of incomes from work are also very great, since the children of those who inherit property inherit better economic opportunities, in the form of better chances than they might otherwise have had, and than others have, of health, education and comfort. Thus " the institution of inheritance promotes social stratifica-

[1] Salmond, *Jurisprudence*, p. 422.

tion through its indirect effects not less than through its direct."[1] Each year about one-thirtieth part of the total accumulated private wealth in existence changes hands owing to death, and in a period somewhat over thirty years practically the whole will have changed hands. The mere deaths of individuals hardly affect the wealth of the world, and in no way directly affect the mass of material wealth.[2] So, too, the great and growing fund of knowledge and skill is hardly affected by individual deaths and, subject to trivial limitations, this fund is at the free disposal of all. But with the bulk of the material wealth of the world it is otherwise. Its disposal is limited and its proprietorship is determined by the laws of inheritance, in such a way that great wealth is handed down from one generation to another, and poverty likewise is handed down.

We have seen that under modern conditions there is no tendency, apart from the effects of taxation, for great fortunes to break up in the course of a few generations. The statement of Leroy Beaulieu that it is as hard to maintain as to create a fortune[3] is ridiculous, and is akin to the argument that it is undesirable to pay off the National Debt, because by so doing we should deprive widows and elderly spinsters of a safe investment. In spite of taxation, it is generally quite easy for any reasonably prudent person, not only to maintain a large fortune intact, but by saving and judicious investment steadily to increase it. As Dr. Watkins truly says,

[1] Taussig, *Principles of Economics*, II., p. 248. Moreover, "mere continuance of prosperity is likely to increase the inequality of incomes resulting from inequality of inheritance." (Cannan, *Wealth*, p. 184).

[2] "It is a law of our nature," said a speaker at a political meeting some years ago, "that just as we cannot bring anything into this world, so none of us, not even the richest, can carry anything out." "And if you could, it would melt!" commented a member of the audience. For an alternative view, compare Mr. Hilaire Belloc's Poem, *Dives and Lazarus*, (*Verses*, pp. 1–2).

[3] *Répartition des Richessés*, pp. 261–262.

"keeping riches once gained is easier than ever before. . . . The rich by inheritance have a position which they can lose only by a destructive tendency amounting almost to madness."[1]

Though very curious and very important, the phenomenon of inherited wealth has been very much neglected, especially by professional economists.[2] "Few economists," says Professor Graham Wallas, "think with satisfaction of the degree to which the less urgent desires of the minority who have inherited wealth are now satisfied before the more urgent desires of the majority who have not inherited it."[3] It would be more true to say that few professional economists appear to think of this aspect of the distribution of wealth at all. Their thoughts on this subject at any rate are usually confined to stray comments or *obiter dicta*, which are often neither particularly illuminating nor particularly profound. The importance of the question has been most vividly present to the minds of many, who can make small claim to the title of economist. "I am astonished," said de Tocqueville, "that ancient and modern writers have not attributed to the laws relating to succession a greater influence in the march of human affairs. . . . They should be placed at the head of all political institutions, for they exercise an incredible influence upon the social conditions of peoples."[4] The grounds of de Tocqueville's astonishment are no less valid to-day, in spite of the fact that he imagined that America would continue to be a land of moderate fortunes evenly distributed.[5]

§2. It is important to avoid false analogies between

[1] *Growth of Large Fortunes*, p. 159. Compare Taussig, *Principles*, II., p. 168.

[2] Compare Part II., *passim*, and especially Chapter VII. §§ 8–11 above.

[3] *The Great Society*, p. 312.

[4] *La Démocratie en Amerique*, Vol. I., Ch. III., pp. 74–5.

[5] *Ibid*, Vol. II., Part III., Ch. I., and Vol. IV., Part IV., Ch. VIII.

the inheritance of private property and other forms of inheritance in economics, politics and biology. For such false analogies are very commonly met with.[1] Certain analogies, which are not logical connections, are apt, indeed, to impress the modern mind. It is not, for instance, to be expected that, when "the hereditary principle" has been practically abolished as regards political power, it will be much longer ignored as regards economic power. Yet, as an example of how even an intelligent man could look at inheritance a century and a half ago, we may still read with interest Burke's letter to the Duke of Richmond in 1772. "You people of great families and hereditary trusts and fortunes are not like such as I am, who . . . are but annual plants that perish with our season, and leave no sort of traces behind us. You, if you are what you ought to be, are the great oaks that shade a country, and perpetuate your benefits from generation to generation."[2] More recently one of Meredith's characters found himself able, in the spirit of Burke, to "venerate old families, when they are not dead wood," but the capacity for even this conditional "veneration" is probably growing rarer. For reason begins to suggest that all families are really equally old, though unequally notorious, and even that, the worthier any family may be of "veneration," the less

[1] See, for example, the remarks of Schmoller, quoted in Part II, Ch. VI., § 4, above. Even Mr. Hartley Withers (*Poverty and Waste*, pp. 49–50) after observing that "the owner of inherited wealth above all men is bound to be extremely careful of the use that he makes of it . . . For he owes everything to the care that his fellow-creatures take of him. He may think that he owes it all to his great-grandfather, but herein he errs," seems to encourage confusion of thought when he continues, a few sentences later, as follows. "When the case has thus been decided against the owner of inherited wealth, and he has been cautioned as a suspicious character, let us then go on to recognise that we are nearly all of us owners, if not of inherited wealth, at least of inherited earning power." For there is no genuine analogy between inherited wealth in this sense, and inherited earning power.

[2] Quoted by Hammond, *The Village Labourer*, p. 24.

its members should need the economic prop of inherited wealth.

But the full realisation and constructive criticism of this institution are surprisingly slow to arrive. "The question of inheritance," said Stein in 1850, "is the question upon the discussion of which the entire future of the social form of Europe will rest during the next two generations."[1] He has proved quite wrong. Many thinkers of high reputation still talk, or remain silent, about the law of inheritance, as though it had fallen immutable from heaven into the Garden of Eden.

§3. In fact, law and custom regarding inheritance show great variations both in the same country at different times and in different countries at the same time. Law imposes an outer limit and custom an inner limit, within which the effects of the institution operate. The outer limit of law is sometimes crossed by illegal evasion, and the inner limit of custom includes such so-called "legal evasion" of the intentions of the legislator, as gifts of property among the living, designed to evade the operation of rules of law. Both law and custom are expressions of public opinion, but expressions in which the same weight is not necessarily attached to different sections of public opinion. A divergence is specially likely to appear in a politically democratic country with a markedly unequal distribution of property.

The law regarding the inheritance of property may be divided into two parts, the fiscal and the non-fiscal law. The fiscal law regulates the taxation of inherited property, whether at the moment of inheritance or at other times. The non-fiscal law regulates the extent to which, if at all, freedom of bequest is permitted, and the rules which determine inheritance, in so far as freedom of bequest does not operate, including rules of intestate succession.

[1] *Geschichte der Sozialen Bewegung in Frankreich*, II, pp. 226–7.

In the next chapter I shall begin by considering the non-fiscal law, and the chief forms, which it has assumed in ancient and modern times.

CHAPTER VI

The Comparative Non-Fiscal Law of the Inheritance of Wealth.

§1. Under most systems of modern law, when an individual dies, a part of his property, if this exceeds a certain minimum value, is transferred by taxation or other fiscal law to one or more public authorities. In this chapter I shall consider briefly the comparative fate, under different systems of law, of property changing hands at death, in so far as it is not thus transferred to public authorities.

It may seem to some that an enquiry into comparative law is no fit work for an economist. But there is no more reason for economists to leave the law of inherited property to the lawyers, than to leave the law of diminishing returns to the farmers. Moreover, such an enquiry will be approached by the lawyer and the economist from different angles, and this will lead to differences in the appropriate methods of enquiry and in the relative weight which each will attach to different classes of facts. The lawyer is greatly interested in abnormal, but the economist chiefly in normal, cases. The lawyer leads abnormalities into court; the economist drowns them in large aggregates. There is thus much minute and detailed study, which is appropriate to a purely legal, but not to an economic, treatment of this subject. On the other hand, the economist's conclusions as to the economic effects of law must be modified by considerations of custom, with which the lawyer has no direct concern.[1]

[1] Though law and opinion, and hence custom, react upon one another. Compare Dicey, *Law and Opinion in England*, Ch. I.

Again, lawyers have continually distinguished between possession and property, and between legal and equitable ownership, and the whole fabric of trusts and settlements in English law is based on this distinction. But this distinction has little interest for the economist, who wishes primarily to know who is entitled to spend the income from property. Whether such income comes to the individual directly, as legal owner of the property, or indirectly, as a beneficiary under a settlement, (the trustee being legal owner), is generally for the economist only of secondary interest. There is further a difference of terminology, which is of some importance. The economist, whose main interest is in economic effects, will find it convenient to practise an economy of technical terms and to ignore certain distinctions, which are vital to the lawyer, whose main interest is in legal rules. Thus the lawyer gives to the word "inheritance" a more restricted meaning, than that which it is convenient for the economist to adopt. For the economist, to "inherit" will most conveniently mean, to receive the property of another at that other's death, whether under a will, or as a legitim, or under rules of intestate succession. For the lawyer, inheritance under the law of legitim or intestacy is distinguished from bequest under a will, and in England a further distinction is still drawn, in cases of intestacy, between the "heir" to realty and the "next of kin," who succeeds to personalty.

§2. Most Fnglishmen, who have not studied comparative law, will think it natural that the ownership of their property after their death should be governed by their Last Will and Testament. Most Frenchmen, in like case, will think it natural that the operation of their will should be subject to the law of the Légitime. But many Indians, far from thinking the disposition of property by will to be natural, will find great difficulty in understanding what the mere idea of a will signifies

and implies. Indeed, Maine has pointed out that to the vast majority of mankind throughout recorded history the idea would be quite incomprehensible.[1]

A will, being an individual disposition of property, is not possible when private property is held only by families and not by individuals. Wills, therefore, in the strict sense, are nowhere found in primitive societies, and only appear as genuinely individual property emerges.[2] In their origin wills were connected with superstitious beliefs and religious ceremonies, traces of which may still be found in some modern systems of law.[3] The influence on modern systems of the old

[1] *Ancient Law*, pp. 173 ff.

[2] On the comparative historical development of the law of inheritance in different parts of the world there exists a large literature. See, in particular, Maine, *op. cit.*, Chapters VI. and VII., Letourneau, *Property, Its Origin and Development*, Chapter XVIII., Hunter, *Introduction to Roman Law*, Chapter V., Pollock and Maitland, *History of English Law*, Vol. II., Eyre Lloyd, *Laws of Succession in Christian Countries*, Gans, *Das Erbrecht in Weltgeschichtlicher Entwickelung*, Vol. I., Chapters V. and VI., and Post, *Grundriss der Ethnologischen Jurisprudenz*, Vol. II., Book III. The primitive forms of inheritance in Russian peasant households, which continued till recently to exist side by side with a more modern code, are described by Mackenzie Wallace, *Russia* (2nd edition), Vol. I., pp. 118–123.

[3] Among primitive peoples rudimentary personalty, in the form of tools, weapons, etc., was generally either buried with the owner or destroyed at his death. For it was imagined by some that the dead man would need these things in a future life, and by others that they had become tainted by his death. (Hobhouse, *Morals in Evolution*, Chapter VIII.). In early Roman, Hindoo, and other law, the heir was the person whose duty it was to perform the funeral rites for the comfort of the deceased's soul. Hence the adoption of a child by childless persons. For "to die childless was to leave the perturbed spirit of the father without rest or food; from the natural protector of his house he became a malignant ghoul." (Hunter, *op. cit.*, p. 151). Nor will a Christian Englishman find that such beliefs were held only by pagans or by foreigners. "During the two centuries which followed the Norman Conquest an intense and holy horror of intestacy took possession of men's minds." (Pollock and Maitland, *op. cit.*, II., p. 352). For to die intestate was to die unconfessed, and to run the risk of spending eternity in hell-fire, according to the best opinion of those days. Maitland observes (*Equity*, p. 35) that even in 1535, the year of the Statute of Uses, men still regarded testamentary power as "the power of purchasing the repose of their souls." It is instructive

Roman Law and of the Civil Code have also been profound.[1]

§3. Given that wills are allowed by law, the practical question is, within what limits and subject to what conditions are they allowed? The answer to this question differs greatly under different systems of law. Limitations on the freedom of bequest, that is to say on the legal power to dispose of one's property by will, are of three kinds, first, as regards purpose, second, as regards time, third, as regards the proportion of an individual's property to which, apart from taxation, his will may apply.

Limitations as regards purpose are illustrated by the English judgment in which it was laid down that "the dead hand will not be suffered to withdraw property from the uses of the living. No man can validly direct that his lands shall lie waste, or that his money shall be buried with him, or thrown into the sea."[2] In law, no less than in ethics, "the earth," in Acton's words, "belongs to those who dwell upon it, not to those who lie beneath

to notice that English Kings successfully resisted the claims of thirteenth century Popes to the goods of intestate clergy, but that "the prelates firmly established, as against the King and the lay Lords, their right to distribute the goods of the intestate for the weal of his soul," so that "in 1268 it was necessary . . . to remind the prelates that they were but trustees in this matter, and were not to treat the goods of intestates as their own." (Pollock and Maitland, *op. cit.*, II., pp. 359-60). Ecclesiastical influence in the matter of inheritance was exercised through many centuries by various means, including (1) keeping alive in the minds of the faithful a terror of intestacy, and sometimes perhaps also a terror of ungrateful wills; (2) discriminating legislation aimed against the unfaithful, as when Roman Catholics were disabled under English law from taking a legacy, (Anson, *Law and Custom of the Constitution*, Vol. I., p. 90); and (3) the jurisdiction of the Ecclesiastical Courts. It is an extraordinary fact that up till 1857 these Courts were allowed to retain jurisdiction in England in respect of wills of personalty, and of intestate estates, both real and personal. (Anson, *op. cit.*, Vol. II., Part II., p. 257. Compare Carter, *History of English Legal Institutions*, pp. 236 ff).

[1] See on this subject, in addition to the books quoted above, Amos, *The Roman Civil Law*, Part III.

[2] Brown *v.* Burdett, 21 Ch. D. 667.

it." Other limitations have been imposed in the supposed interests of morality and public policy generally, but they are not of great practical importance.

Somewhat more important are limitations as regards time, which are illustrated in English Law by the Rule against Perpetuities and the Rule against Accumulations. By the Rule against Perpetuities the ownership of property cannot be determined by a will for a longer period of future time than that of " lives in being, plus twenty-one years, plus a period of gestation," and by the Rule against Accumulations limitations are imposed upon the period, during which under a will the income from property may be ordered to accumulate at compound interest.[1]

On the whole, however, the most important modern limitations upon freedom of bequest are limitations as to amount. These are effected by the law of legitim, which forms part of many modern legal systems. Under this law an individual's freedom of bequest is limited to a certain proportion of his property, the remainder passing at his death, irrespective of his wishes, to members of his family, according to fixed legal rules. We may divide modern communities into two broad classes, according as their law of inheritance provides for substantial freedom of bequest or for some form of the legitim. Substantial freedom of bequest prevails in England and Wales and in Ireland, in the Self-Governing British Dominions, except South Africa, and in the United States of America, except in the State of Louisiana.[2] Various forms of the legitim are found in Scotland, in all the more important countries of Continental

[1] For a short and clear statement of the Rules against Perpetuities and Accumulations see Topham, *Real Property* (2nd edition), pp. 133 ff.

[2] Where the Code Napoléon, which was the law of the whole Louisiana Territory before its sale by France to the United States, still forms the basis of the State law. Compare Bryce, *American Commonwealth*, I., p. 482.

Europe, except Russia, in South America, in South Africa, and in the State of Louisiana. The Russian Law was difficult to classify before the Revolution, and the Soviet Government has since practically abolished the inheritance of property.[1] In the United States inheritance law is State and not Federal, and in most States a surviving spouse has certain rights of succession.[2] This fact might be thought to justify the inclusion of the United States among the States of the legitim. But in all other cases the legitim includes provision for children and other relatives, besides a surviving spouse.

[1] The Soviet Government's decree on this subject, dated April 27th, 1918, was published in full in the New York *Nation* of December 28th, 1918. It provides that "inheritance, whether by law or will, is abolished. After the death of an owner, the property which belonged to him, whether movable or immovable, becomes the property of the Russian Socialist Soviet Federal Republic . . . Until the issue of a decree dealing with general social arrangements, relatives who are in need *i.e.*, who do not possess a minimum maintenance, and who are incapable of work . . . receive support from the property left by the deceased." The amounts of such allowances are to be determined by local tribunals. Such allowances have priority over the claims of creditors of the deceased. Property of value not exceeding 10,000 roubles, and also farm lands, are excluded from the scope of the decree and pass into the possession of the surviving spouse, and the poorest among the close relatives, of the deceased. In the event of disagreement among the latter as to the control and management of the property, the local tribunal will decide.

[2] Generally, one-third of the personalty absolutely, and a life interest in one-third of the realty. See Ely, *Property and Contract*, I., pp. 421–8, 446. Most of the United States follow fairly closely the English Rule against Perpetuities. Some follow the Rule against Accumulations, but others do not, (Underwood, *Distribution of Ownership*, pp. 115, 151, and Ely, *op. cit.*, pp. 466–9). Other peculiarities are found in the inheritance laws of the States. The constitution of California (Art. IX., § 4) provides that "all estates of deceased persons who may have died without leaving a will or heir . . . shall be and remain a perpetual fund, the interest of which . . . shall be inviolably appropriated to the support of common schools throughout the State." (Quoted Bryce, *op. cit.*, I', p. 702). A similar provision at one time prevailed in Maryland, (Ely, *op. cit.*, I., p. 447). According to Leaflet No. 3 issued by the Divorce Law Reform Union, in South Carolina a man may not leave more than a quarter of his property to any mistress or illegitimate child.

The details of the legitim vary considerably from one country to another.[1]

Substantial freedom of bequest at the present time, therefore, is practically confined to the English-speaking countries, and it is interesting to notice that it is of comparatively recent development. The law of the legitim, as regards children, prevailed in parts of England until the beginning of the eighteenth century and, as regards the wife, under the name of dower, until 1834.[2]

[1] For a full account of these details see Eyre Lloyd, *Laws of Succession in Christian Countries*, and for much valuable miscellaneous information, Ely, *op. cit.*, I., pp. 415–474. In French law the total legitim increases with the number of children, so that a testator with n children only enjoys freedom of bequest over one $(n+1)$th part of his property. In Italy, on the other hand, the legitim is one-half of the property, whatever the number of children. Compare Graziani, *Teorie e Fatti Economici*, p. 102.

[2] The widow's right to dower only applied to realty. As regards personalty, the law of legitim prevailed all over England and Scotland in the twelfth and thirteenth centuries. Personalty, on the death of a male owner, was divided into three equal parts, which were called "wife's part," bairns' part," and "dead's part." Only the "dead's part" was subject to freedom of bequest. In the seventeenth century this form of the law of legitim still prevailed in Scotland, in the Province of York, and in London and other towns, though freedom of bequest was recognised in the Province of Canterbury. Freedom of bequest was allowed in the Province of York in 1692 and in London in 1724, but not to this day in Scotland. These legal changes were not made with any very clear-headed appreciation of the principles at issue. In this case "our English law seems to slip unconsciously into the decision of a very important and debateable question. Curiously enough the Act of 1692, which enables the inhabitant of the northern province to bequeath all his goods away from his family, was professedly passed in the interests of his younger children," because the widow was thought to get too much. "To the modern Englishman, our modern law, which allows the father to leave his children penniless, may seem so obvious that he will be apt to think it deeply rooted in our national character. But national character and national law react upon each other, and law is sometimes the outcome of what we must call accidents." (Pollock and Maitland, *op. cit.*, II., pp. 335–6). The Scotch law also differs from the English in allowing the legitimation of illegitimate children by subsequent marriage of the parents. As regards realty, the drift towards increasing freedom of bequest in England during the nineteenth century is illustrated by the Illusory Appointments Act, 1830, and the Powers of Appointment Act, 1874, (Topham, *Real Property*, pp. 161–3) and by the abolition, under the

On the other hand, substantial freedom of bequest prevailed in parts of France before the Revolution, and was only abolished by the Code Napoléon. This is the historical reason why substantial freedom of bequest is the law in the Province of Quebec, for in Canada, as in the United States, the inheritance law is not Federal, but is determined by each Province for itself.

§4. Where an individual is permitted by law to make a will, he does not always do so. In some cases this omission is due to forgetfulness, in others to the superstitious belief that to make a will is unlucky and will hasten death, in a few to the belief that a will once made is irrevocable and cannot afterwards be altered. This last belief is, of course, a complete error, induced perhaps by the phrase "Last Will and Testament." Any sane person over twenty-one can make a new will, if he wishes, every half-hour and that will, which is latest in time, revokes all the others, in so far as they are inconsistent with it.

An individual, who dies without having made a will, is said to die intestate, and the ownership of his property is determined by the rules of intestate succession. These rules vary in different countries.[1] In most cases all the property is equally divided between all children without distinction of age or sex, subject to some provision for the surviving spouse. In English law a distinction is drawn between realty, which includes all landed property other than leaseholds, and personalty, which includes leaseholds and all other property. Subject to certain rights

Dower Act, 1833, of the widow's right to dower (Williams, *Real Property*, twenty-first edition, pp. 322–9). This right entitled her to a life interest in one-third of her deceased husband's land. It is spoken of by Williams and others as an "inconvenient right," but they are evidently not looking at the matter from the point of view of the widow, who is liable under the present law to receive nothing on her husband's death.

[1] For details see Eyre Lloyd, *op. cit.*

of surviving spouses[1], the personalty is equally divided between all children, but all the realty goes to the eldest son.[2] This latter provision constitutes what is generally known as the Law of Primogeniture. It is a common error to suppose that the Law of Primogeniture applies compulsorily to all property. In fact it applies only in cases of intestacy, and then only to realty. It has, however, been the custom of many landowners, especially hereditary peers, to leave their estates by will, or more often under a settlement, to their eldest son. But primogeniture by custom should be clearly distinguished from primogeniture by law.

The rules of intestate succession may be based on any, or on a combination, of three principles, first, the presumed wishes of the dead man, second, the interests of his family, third, the interests of the community. A right choice between these principles may obviously involve a conflict between equity and economy. This question, however, must be postponed to a later chapter.[3] But it may be added that, since most people with any appreciable property do in fact make wills, the law of intestate succession is of less interest to the economist than to the lawyer.

[1] If there are no children, the widow gets the whole estate, if this is worth less than £500, and a first charge of £500, if it is worth more. Apart from this first charge, she gets a third or a half of the personalty, according as there are, or are not, children, and in either case, a life interest in a third of the realty. A widower, if his wife dies intestate, takes all her personalty, and, subject to certain conditions, a life interest in all her realty. (Topham, *op. cit.*, pp. 125–131).

[2] Registered land in Ireland descends as personalty, and "when the work of the Land Purchase Acts has been completed, practically the whole land of Ireland will be registered." (Morgan, *New Irish Constitution*, pp. 213–4).

[3] See Chapter X. below.

CHAPTER VII

THE COMPARATIVE EFFECTS OF THE NON-FISCAL LAW OF INHERITANCE.

§1. Certain broad conclusions may be drawn as to the comparative effects of the various forms of the non-fiscal law of inheritance upon the inequality of incomes from inherited property and upon the community's productive power.

In primitive societies, where property belongs not to the individual but to the family or tribe, and where the will is unknown, both inequality and productive power will generally be small. But no great importance attaches to this case in the study of modern conditions. Passing to the case of individual property and of actual restrictions on freedom of bequest, we may distinguish the effects of different types of restriction.

§2. Actual restrictions in respect of purpose are probably beneficial to production, but without much effect on inequality. As regards actual restrictions in respect of time, the Rule against Perpetuities probably tends both to increase production and to diminish inequality. But the Rule against Accumulations is of much more doubtful economic expediency. For it prohibits saving in certain cases in which, but for its operation, an exceptionally large amount of saving would have taken place. It also tends, probably, to diminish inequality, but the gain from this appears to be less certain and less important than the loss inflicted on production by the check to saving.

§3. Passing to the more important question of the effects of restrictions in respect of amount, it is often

supposed that substantial freedom of bequest is certain to cause greater inequality than most forms of the law of legitim. This idea was in the minds of the legislators who introduced the legitim in France after the Revolution,[1] and has been accepted by various writers in more recent times.[2] But this idea is not necessarily correct.

The law of legitim establishes the legal right of certain relatives to a considerable part of a dead person's property, with the result that only part of this property may be left by will to those not entitled to succeed under the law of legitim, whether to persons outside the favoured circle of relatives or to educational or charitable institutions. The comparative effects upon inequality of substantial freedom of bequest and of the law of legitim depend, therefore, on fact and custom rather than law and, in the absence of knowledge as to such fact and custom, it is impossible to say which of the two types tends to cause the greater inequality. If it were the wish of all testators to leave all their property, of which they could dispose by will, to their eldest sons, the law of legitim would tend to diminish inequality. If, on the other hand, it were the wish of all testators to leave a large part of their property to poor friends, who were not related to them, or to educational institutions or hospitals, or even to public authorities, the law of legitim would tend to increase inequality.

Further, if we assume that under freedom of bequest testators would generally distribute their property exclusively among their relatives and that this distribution would be more unequal than under the law of the legitim, the greater inequality attributable to freedom of bequest would often be less than might be supposed. For the

[1] Compare *Cambridge Modern History*, Vol. VIII., pp. 729–731.

[2] See, *e.g.*, Minghetti, *Dalla Economia Pubblica e delle sue Attinenze colla Morale e col Diritto*, pp. 470 ff.

birth-rate among rich families is generally much lower than among the population at large. In view of this fact, Professor Rignano rightly points out that the law of legitim exercises only a very small diffusive effect upon great fortunes, and that it may even increase inequality, as, for instance, when an only child inherits, under the law of legitim, both from his parents and from his unmarried or childless relatives.[1] Where, however, the number of children is large, as is often the case with small fortunes, the law of legitim will tend to produce less inequality than freedom of bequest.[2] But this effect will not be important, since existing inequalities depend very much more upon the existence of large fortunes than upon the degree to which small fortunes are subdivided.

Mill's proposal to limit the amount, which any one individual may receive by inheritance or gift, has not yet been embodied in any actual legal system.[3] The imposition of such a maximum limit would obviously

[1] *Un Socialisme en Harmonie avec la Doctrine Economique Liberale*, p. 20. Compare Sella, *La Vita della Ricchezza*, p. 62. Professor Irving Fisher thinks, on the other hand, that "if there is an equal distribution among the children of the rich, the fortune is pretty sure to run itself out in a few generations or centuries,(*Elementary Principles of Economics*, p. 491).

[2] Compare Séailles, *La Répartition des Fortunes en France*, p. 67.

[3] But it is interesting to notice that such a scheme was approved in 1886 by the Illinois Bar Association, and introduced in the form of a Bill, which, however, failed to pass, in the Illinois State Legislature in 1887. Under this Bill the maximum amount, which under any one will or intestacy a surviving spouse or child of the testator might inherit, was fixed at £100,000, or 1,500 acres of land, and which any other person might inherit at £20,000. These limits did not apply to educational or other benevolent bequests. Gifts made with the object of defeating the law were to be void. The supporters of this Bill claimed that it would apply only to those "abnormally large fortunes" which, under the existing law, "menace the political power of the State" and that their recommendation "is in harmony with the spirit of our institutions, and in the same direction as the present laws against perpetuities and entailments." See Ely, *Taxation in American States and Cities*, pp. 319, 515–532.

tend to reduce inequality, and this tendency would be greater, the smaller the maximum. Such a limit might be imposed as part either of the non-fiscal or the fiscal law. In the former case, it would need to be provided that a will in which the legal limit was exceeded should be void, either as a whole, or in so far as the limit was exceeded. In the latter case, the limit would be imposed by means of a progressive tax on inherited property, appropriately graduated.

§4. In considering the comparative effects of freedom of bequest and of the legitim upon productive power, we need to distinguish between effects on the action of testators and effects on the action of inheritors. Sidgwick has propounded a characteristic dilemma, the substance of which is that any restriction on the right of bequest tends to reduce work and saving by testators, while the absence of restriction tends to reduce work and saving by inheritors.[1]

As regards testators, the motives of accumulation are complex, but moderate restrictions do not seem likely to restrict work or saving appreciably, though a drastic restriction on the lines proposed by Mill might do so.[2] As regards inheritors, we need to distinguish between the effects of *the fact* of inheritance, and the effects of *the expectation of the fact* of inheritance. In general, the effects of *the fact* of inheritance will obviously be to make work and saving less than they would otherwise have been, and markedly less if the amount inherited is large, or if the inheritance comes at an early age. In the case of large fortunes, the total check to work, and probably also to saving, will generally be greater, if these fortunes are broken up into several parts of considerable size,

[1] *Principles of Political Economy*, pp. 404 ff., and *Elements of Politics*, pp. 102–3.

[2] Compare Rignano (*Un Socialisme*, p. 37). Professor Graziani argues that the legitim cannot be defended on the ground that it encourages production, (*Teorie e Fatti Economici*, p. 102).

than if they are handed down unbroken, except by taxation. For this reason it may be argued that the legitim, as applied to large fortunes, increases the number of idlers more than freedom of bequest might do.[1] But the force of this argument is weakened by the fact already mentioned that rich families, as a rule, have a low birth-rate.

Another argument which has been used against the legitim, and might equally be used against Mill's proposal, is that it tends to an excessive subdivision of property, which is harmful to efficient production.[2] This argument is most plausible in regard to agricultural land and private, as distinct from joint stock, businesses. For in other cases, apart from reactions on the amount of new saving, subdivision of individual property rights need not hinder the adoption of the most efficient methods of production. Even as regards land, as Mill pointed out,[3] no such harmful effects on production need follow an equal division of property rights, if those concerned in the division are fully alive to their own economic interests. For the land itself need not be divided into uneconomic holdings. One of those concerned may continue to hold and work the land in the most economic units, and the others take a share in the profits.[4] In fact, however, it must be admitted that those concerned often fail to make such agreements, but are led by ignorance, sentimentality or jealousy to excessive subdivisions. Such excessive subdivision undoubtedly exists in parts of Ireland and of Continental Europe, though in France, and to a certain extent elsewhere, it is partially and slowly corrected by a reduction in the birth-rate of the families concerned, which tend to cut their coat according to their cloth,

[1] Rignano (*op. cit.*, p. 38) makes the same objection to Mill's proposal.
[2] Compare Marshall, *Industry and Trade*, p. 114.
[3] *Principles of Political Economy*, pp. 296 ff.
[4] The same argument applies to private businesses.

or the size of their families according to the size of their estates. The legitim, in short, will only produce these uneconomic effects, provided three other conditions are also present, namely, an already wide diffusion of landed property, a moderately high birth-rate among the proprietors, and a certain lack of economic understanding. Mill's proposal for a maximum inheritance, unless fixed very low, would have no such effect, nor would the legitim in regard to large fortunes.

Turning from the fact of inheritance to *the expectation of the fact*, it is clear that the latter will cause a check to work and saving additional to that caused by the former. Only inheritances which are windfalls, that is to say, totally unexpected, are likely to be completely free from this checking tendency. We might add, as a counsel of perfection, to the old precept that "established expectations should not be disappointed," the new one, as regards inheritance, that "no expectations should become established." As between different classes of expectations, the check to work and saving will be less for small than for large inheritances, and less when the expectation is remote than when it is near. But though, from the point of view of maximum production, it is better that property should come to inheritors late in life, yet the welfare derivable from a given expenditure will generally diminish, for any particular person, as he grows older. This fact is important in relation to gifts *inter vivos*, which are considered below.

§5. We may now go on to consider the effects on inequality and on production of various rules of intestate succession. Up to a point the argument of the preceding sections is equally applicable. It is obvious that equal division between children, without distinction of age or sex, tends to cause less inequality than primogeniture. But, seeing that women's incomes, both from work and property, are generally smaller than men's, a division

between children, in which daughters received more than sons, would tend to diminish inequality further. The same would be true of succession under the law of legitim. Schemes of intestate succession, in which ascendants participate, will generally lead to greater immediate inequality than schemes from which they are excluded, since they are generally older and richer than descendants or collaterals of the same generation. The only practicable alternative to allowing distant relatives to inherit on intestacy is to transfer the property concerned to the State, a proposal which falls under the heading of fiscal law and will be considered in Chapter IX. below.

As regards effects on production, Dr. Johnson defended primogeniture, whether by law or custom, on the ground that "it makes but one fool in a family," and it certainly tends to make but one idler, and probably also to encourage saving, since in general the larger any one's income, the larger the proportion which he saves. In considering the effects of intestate succession, we need only consider the effects of the fact, and not of the expectation of the fact, of inheritance, since the expectation will always be that a man, if he has anything to leave, will make a will. Intestacy is rare and unimportant among the rich, and any stiffening of the rules of intestate succession, in a sense disagreeable to property owners, will merely stimulate will-making.[1]

The problem of encouraging accumulation and, in particular, of checking decumulation, will be considered in Chapter X. below. Its solution will be found to turn, in large measure, upon the introduction in law of differential treatment as between property which a man has acquired out of his savings, and property which he has received by inheritance or gift.

[1] Compare Rignano, *op. cit.*, p. 33.

CHAPTER VIII

The Comparative Effects of Custom Within the Limits of the Non-Fiscal Law.

§1. It was pointed out in the last chapter that, for a complete knowledge of the comparative effects of different laws of inheritance, we need to know how custom operates within the limits of such laws. The comparative inequality produced by substantial freedom of bequest on the one hand, and of the law of legitim on the other, depends upon such custom. In this matter our knowledge is at present very imperfect. An analysis of substantial wills in different countries, designed to show the extent to which testators concentrate their property on one inheritor, or spread it among many, the extent to which they leave property to those who are not related to them, and the proportion of their property which they leave for "benevolent" purposes and to institutions, would be very valuable and instructive. But no such analysis seems hitherto to have been attempted. It is an important piece of research, which still awaits a researcher.[1] Very much less important in its effects

[1] It could be very useful without pretending to be exhaustive. A good sample could probably be obtained, *e.g.*, by taking the wills during the last ten years of all persons whose names began with B and who left property worth more than £10,000. The data in this country are all at Somerset House, and any will may be inspected on payment of a small fee. A complication of course arises, in so far as property is settled on trustees during life, and not left by will at all. But this would not greatly disturb the general results. Another largely unworked field of research, of interest both for economists and economic historians, is offered by the life history of millionaires. The comparative numbers of millionaires in different occupations, including the occupation of passive inheritance, has been partially investigated. See Watkins, *Growth of Large Fortunes*, pp. 141–147

on inequality, but worthy of a much closer investigation than it has yet received, is the question of how the poor leave what little property they possess.

§2. In the absence of precise knowledge regarding customs of bequest, we are thrown back upon rough "common knowledge" and general considerations. Common knowledge suggests that in England at any rate freedom of bequest produces, especially as regards land, a more unequal division of property among relatives than would be produced under most forms of the law of legitim. In the United States it would appear that in the past freedom of bequest was so exercised as to produce a more equal division than in England, but that American custom in this respect is gradually changing and approximating more and more to the English.[1]

On the other hand, freedom of bequest in England, the United States and the British Dominions makes possible a larger transfer of property to institutions of various kinds than is possible under the law of legitim. The absolute amount of property so transferred, both by will and during life, is very large in the United States and probably larger relatively there than in England. It has been said that in the eyes of the American public "good giving" expiates "bad getting," and that "the public is the residuary legatee of millionaires."[2] The social value of such transfers depends, of course, upon the character of the institutions which benefit. Many "charities," which have been largely endowed, are of very doubtful social utility, but the endowment of

[1] See Irving Fisher (*Elementary Principles of Economics*, pp. 490–491), who adds the comment, "such a change in testamentary custom will furnish a new and powerful tendency for existing inequalities to be accentuated and perpetuated." Compare Bryce, *American Commonwealth*, II., p. 720.

[2] Mr. G. S. Lea, in his *Inspired Millionaires*, dwells upon the possibility of rich men doing far more than they do to advance the welfare of the community by their bequests.

educational institutions[1] and gifts of public parks, buildings and art collections for public use cause unquestionable social gain, as compared to the alternative of allowing the property concerned to enrich individuals. Professor Sella, however, argues that it is an effect of the law of legitim to transfer to the State and local authorities such forms of wealth, as are not easily divided, "villas, palaces, parks and artistic collections."[2]

The making of bequests to public authorities is still so rare as to be thought eccentric, and by some hardly creditable. In 1797 Peter Thellusson by his famous will, which was held to be so contrary to public policy as to require the passing of a special Act of Parliament to prevent similar wills in future left, in certain contingencies, what would have been a large accumulated sum for the reduction of the National Debt.[3] In 1913 a less wealthy man, a solicitor's clerk, left the residue of his property, amounting to about £4,000, to be divided equally between the Cheltenham General Hospital and the Commissioners for the National Debt, and earned thereby notoriety in *The Times* and the description, "William Gammond, Patriot"![4] In the same year a certain

[1] The gain to education through private endowments may be neutralised, if conditions are attached which limit liberty of teaching. Compare Mr. J. A. Hobson's rather gloomy paper on *Millionaire Endowments* in his *Crisis of Liberalism*, but contrast Morley's opinion (*Recollections*, II., p. 109) that as regards "endowments for great common purposes . . . private munificence moved by the spirit of high public duty has never been shown on a finer scale than by American plutocracy working in a democratic atmosphere."

[2] *La Vita della Ricchezza*, p. 215. He goes on to argue that another effect of the law of legitim has been to encourage deforestation.

[3] Thellusson left £100,000 to his wife and children, and assigned to trustees some £700,000, which was to accumulate at compound interest during the lives of all his direct descendants living at his death. If, on the death of the last survivor of this group, there was no heir, the accumulation was to go to the State for the reduction of tho National Debt. In fact, the fortune was divided between two heirs in 1859, but it had been largely eaten away by law costs.

[4] See *The Times* of 25/7/13.

Mrs. Johnson left legacies worth £7,000 to certain hospitals under the control of the Metropolitan Asylums Board, and a certain Mr. Lyon Thompson, a member of the Board, was unwilling to accept the money, for the most illuminating reason that, as it seemed to him, "it was not conceivable that any person of sound mind would have left the money if she knew it would be applied in relief of the rates."[1] In 1919 a certain Mr. Wallace, a member of a firm of Indian merchants, unless either of his sons should have obtained "at least a baronetcy," left the residue of his estate, valued at £250,000, to the British and Indian Treasuries, "because I hold the view that, subject to the right to make adequate provision for his children, all possessions, great or small, if acquired by the testator through the people, as mine were, should return to the people." His sole surviving son, not having obtained a baronetcy, went to law and tried to get this objectionable provision set aside, on the ground that it was against public policy, as it embarrassed the Crown officers in the distribution of honours, and induced the persons concerned to adopt improper means to obtain titles. But Mr. Justice Eve upheld the will,[2] and an appeal against his decision was dismissed by the Court of Appeal.[3]

It is to be hoped that, as time passes, the habit of leaving money to public authorities will grow and flourish among the rich.[4] It might be provided, for their encouragement, and to ensure them at least one form of immortality, that sufficiently large sums so left should be treated by the Chancellor of the Exchequer as capital

[1] See *The Times* of 10/2/13.

[2] See *The Daily Chronicle* of 16/7/19.

[3] See *The Times* of 31/3/20.

[4] In June, 1919, "F. S. M." made a gift to the State of £150,000, a fifth of his property, as a thank-offering for victory in the war, and on January 8th, 1920, "A. M." wrote to *The Times* that he had decided to hand over £120,000 of War Loan for cancellation, hoping that others would follow his example.

and should figure each year in the Finance Accounts under the testator's name in the Miscellaneous Revenue Section, *e.g.*, "Revenue from John Smith's Bequest," alongside of "Revenue from Suez Canal Shares."

§3. There are other sorts of custom, which are important in the present connection. One of these is the extent to which owners of property give away part of it, as distinct from the income from part of it, during their lifetime. In so far as such gifts *inter vivos* are made to persons, as distinct from institutions, there is generally a transfer of property from older to younger people, with the result, as has already been pointed out, that production is likely to be somewhat checked, but also that a given expenditure is likely to be productive of greater satisfaction and welfare. The extent to which gifts *inter vivos* are prevalent depends partly upon the scale and method of taxation of inherited property that is prevalent, or is anticipated, and upon the possibility of evading such taxation, either legally or illegally, by means of such gifts. This point will be discussed in the next chapter. The law of legitim cannot be defeated, except by illegal action, by gifts *inter vivos*. No statistics are available which throw any clear light upon it. But it is a fact of common knowledge that many rich men are ambitious to die rich, and are reluctant to part with control of their property.

§4. Certain marriage customs have a bearing upon the inequality which results from the inheritance of property. Other things being equal, the greater the proportion of marriages between persons of the same social class, as defined by size of income, the greater inequality will be, and the greater the proportion of marriages between persons of different social classes, the smaller inequality will be. Marriage customs differ in different ages and countries, but the prejudice against "marrying beneath oneself,"

which generally means marrying someone whose parents are considerably poorer than one's own, though in some cases it refers to other real or imaginary social distinctions, is found nearly everywhere. Improved general education and increased vertical mobility are likely to extend the effective choice of marriage of most individuals. Amusing cases of intermarriage between members of different social classes are those in which a comparatively impecunious male "of good birth," which is sometimes guaranteed by possession of a hereditary title, marries a comparatively wealthy female of "plebeian" and often of foreign origin. Such marriages are often approved by those sections of public opinion, to which each party is most sensitive, though each party is guilty, in a sense, of "marrying beneath oneself." Marrying money is a middle way between earning it and inheriting it.

A special case of intermarriage within the same social class is that of intermarriage between relatives. Professor Sella quotes figures, according to which the proportion of marriages between relatives is 1½% in France, 1½% in London, 2% in England as a whole, and 4½% among members of the British peerage,[1] and Mr. Mayo Smith gives evidence for supposing that such intermarriage is more frequent in England in the country districts than in the towns,[2] which agrees with common observation. Professor Sella further points out that the law of legitim tends to encourage marriages between relatives, designed to bring together again property which has been compulsorily divided.[3]

It has already been noticed that inequality of inherited property is increased by the fact that the birth-rate among the rich is generally smaller in any country than the birth-rate among the poor, and that, therefore, a

[1] *La Vita della Ricchezza*, p. 159.
[2] *Statistics and Sociology*, p. 112.
[3] *Ibid*, p. 216.

large fortune is generally divided among a number of children smaller than the average number per family throughout the country. But even more striking results may occur. Consider, for example, this hypothetical, but not very improbable, case. A father and mother have five children, all of whom reach at least middle age. Two remain unmarried, two marry but have no children, or none who survive till middle age, and the fifth, a son, we will suppose, marries and has children. These children will certainly inherit under the law of legitim, and will very likely inherit under freedom of bequest, the greater part of the property of their paternal grandparents and of any additional property accumulated by their parents and by their paternal aunts and uncles. They may also inherit additional property from their mother's family. This illustration serves to show that a low birth-rate among rich families tends to increase the inequality of inherited property to a much greater extent than might be imagined at first sight, either under freedom of bequest, normally exercised, or under the law of legitim.

One further point may be noted. Under freedom of bequest it is possible for a testator to leave a large part of his property to persons who are not related to him, and it might be supposed at first sight that, if a number of wealthy testators did this, inequality would be perceptibly diminished. But, in fact, such a result is not very likely. For the persons benefiting substantially under such wills, though not relatives of the testator, will often be friends, belonging to the same social class, and often already wealthy. It may be eccentric to leave much of one's property to persons outside one's family, but it is still more eccentric to leave anything beyond trivial amounts to old servants and others who are really poor. No great diminution of inequality, for example, will result from such wills as that of the late Alfred de

Rothschild, which was described in the Press as "a Thackerayan will," and some of the provisions of which were summarised as follows. "The main part of his estate goes to Lord and Lady Carnarvon. Lord Porchester, the son of Lord and Lady Carnarvon, gets £25,000, and so does his sister, Lady Evelyn Herbert. Other great families also benefit under the will. Lady Curzon, who married Lord Curzon last year, is left £10,000 and £25,000 goes to her three children. Among the many familiar names in the list are the Marquis de Soveral, Sir Edward Marshall Hall, Lord Esher, and Sir Carl Meyer. It is seldom that a rich man distributes his money so widely or so generously."[1] It is probable that the adoption of Mill's proposal to limit individual inheritance would only lead, in many cases, to this kind of wide and generous distribution.[2]

[1] See *The Manchester Guardian* of 8/3/18.

[2] Somewhat more conducive to equality was the will of Mr. Carnegie, who left annuities of from 5,000 to 10,000 dollars to a number of public figures, including Mr. Lloyd George, Mr. Taft, Lord Morley, Mr. John Burns, the two veteran British miners' leaders, Mr. Burt and Mr. John Wilson, and the widows of ex-Presidents Roosevelt and Cleveland. But on the deaths of these beneficiaries their annuities will go back into the main body of the estate. See *The Manchester Guardian* of 29/8/19.

CHAPTER IX

The Comparative Fiscal Law of Inheritance and Its Comparative Effects.

§1. A special form of the fiscal law of inheritance is the Law of Escheat, by which, under certain conditions, a dead person's property reverts to the State. This law has a certain historic interest, but at the present time in this country only applies to intestate estates, in cases where there are no relatives, however remote. It has been proposed by Bentham, Mill and others that the present rights of "collaterals" to inherit on intestacy should be abolished, and the field of operation of the Law of Escheat correspondingly extended.[1] But such a provision would stimulate will-making, and its effect is not likely to be great.

It is conceivable that a society might have developed from primitive conditions into modern civilisation with a law of inheritance, under which wills were more or less completely prohibited, and the rights of inheritance of relatives limited to small amounts, the bulk of the property of deceased persons escheating to the sovereign, that is to say, in later stages of development, to public authorities. But the political power and "class consciousness" of the rich have everywhere contributed to prevent any such historical development.

§2 We may now turn to the more practically important question of the taxation of inherited property.[2] Such

[1] Compare Part II., Chapter III., § 5, and Chapter V. § 3 above.

[2] Professor Graziani rightly points out (*Teorie e Fatti Economici*, p. 103) that a tax on inherited property is to be regarded simply as part of the tax system, and defended as such, and not, as Bluntschli and other "theorists of the State" have argued, on the "metaphysical" ground that "the State" has rights as coheir with individuals to the property of the dead. Compare also Graziani, *Natura Economica Delle Imposte Sulle Successioni* and Nitti, *Scienza Delle Finanze* pp. 677–680.

taxes may be divided into two classes, according as they are imposed on property actually changing hands at death, or on inherited property at other times. It will be convenient to begin by considering the first class, to which the term "inheritance tax" is usually confined.

Nearly all modern communities have inheritance taxes in this sense, but this part of the fiscal law of inheritance differs from other parts and from the non-fiscal law, in that it changes much more rapidly and much more markedly from year to year. The law of legitim in its various forms, and the various legal restrictions imposed on freedom of bequest in the English-speaking countries, have remained substantially unchanged during the past half-century, but inheritance taxes during this period have everywhere been changing and developing.[1]

§3. Three principles of graduation are found, singly or in combination, in most of the inheritance taxes actually in force. The first is graduation according to the total amount of property left by the dead person, larger amounts paying a higher proportionate tax than smaller amounts. This principle is applied, for example, in the British Estate Duty. The second is graduation according to the total amount received by individual inheritors, larger amounts again paying a higher proportionate tax than smaller amounts. The third is graduation according to the relationship of the inheritor to the dead person, a near relative paying a lower proportionate tax than a distant relative, and the latter a lower proportionate tax than a stranger, on an inheritance of given amount. Both the second and third principles are applied in the

[1] The best general account of inheritance taxes is that given by Dr. Max West in his book. *The Inheritance Tax*, first published in *Columbia University Studies*, Vol. IV. A second edition appeared in 1908. The premature death of Dr. West in 1909 is a serious loss to students of this subject who were looking forward to a new edition of his book.

British Legacy Duty, and all three principles are applied in State inheritance taxes in the United States.[1]

The first principle differentiates against large estates, but not between different methods of distribution among inheritors. The second principle differentiates in favour of a fairly equal distribution among a large number of inheritors, as against a more unequal distribution among the same number, or as against concentration among a smaller number. The third principle differentiates in favour of a distribution among near relatives, and against inheritance by strangers. Such differentiation, in all three cases, operates both through the actual operation of the taxes, in which these principles are applied, and also, though probably to a much smaller extent, in the effect produced upon the minds of testators by the knowledge that the taxes will so operate. Mill's proposal to limit the amount which any individual may inherit might be enforced as a particular case of the second principle, the tax being so graduated as to take 100% of all inheritances in excess of the limit laid down. The first principle is the easiest to apply administratively, and it is chiefly for this reason that it figures more prominently than the second or third in the British system of death duties. Randolph Churchill, when Chancellor of the Exchequer in 1886, was anxious to reform the death duties by getting rid of both the first and third principles and relying entirely on the second, but the Treasury officials raised administrative difficulties, which resulted, in combination with Churchill's ill-calculated resignation, in the dropping of the scheme.[2] Harcourt, in his reform of the death duties in 1894,

[1] Compare Bancroft. *Inheritance Taxes for Investors*, Read, *Abolition of Inheritance*, pp. xiii., 293–4, Ely, *Property and Contract*, I., pp. 417 ff. The first principle is applied in the United States Federal Inheritance Tax.

[2] See Mr. Winston Churchill's *Lord Randolph Churchill*, II., Chapter XV.

relied mainly on the first principle, and incidentally abolished a previously existing differentiation in favour of inheritors of realty as against inheritors of personalty.

§4. The comparative effect of the three principles on inequality can best be considered by assuming that a given revenue is to be raised by an inheritance tax, in which only one of the principles is applied. It is clear that, except in very exceptional circumstances,[1] the naked adoption of the third principle will do less to diminish inequality than the adoption of either the first or the second. But such naked adoption implies the taxation of bequests for benevolent purposes at the same maximum rate as bequests to individual strangers. If clothed with the qualification that publicly advantageous bequests of the former sort are to be untaxed, or taxed at a relatively low rate, the application of the third principle will do more to diminish inequality than if it is adopted in its naked form.[2] But it will not do *much* more, unless such public bequests are of considerable quantitative importance, and, unless their importance becomes very much greater than it is at present, even in the United States, the third principle is likely to be decidedly inferior to either the first or the second, as a means of reducing inequality.

As between the first and the second principles, the adoption of the second is likely to diminish inequality more than the adoption of the first, if the scale of graduation is roughly the same in both cases. But, if a given revenue is to be raised, it will be necessary either to have a higher maximum rate, or a lower minimum exemption,

[1] *E.g.* if the generality of strangers benefiting substantially under wills are very much poorer than the generality of relatives, and if, among the latter, near relatives are considerably richer than remote.

[2] In many of the United States, bequests to benevolent and charitable institutions are exempt from taxation. See Underwood, *Distribution of Ownership*, pp. 151–2, where it is also pointed out that many of the States put an additional tax on bequests to non-resident aliens.

or a somewhat steeper graduation, under the second principle than under the first. Even so, the advantage seems to lie with the second.

§5. Turning to the comparative effects of the three principles on production, it does not seem that there is much to choose between them. As compared with other practicable methods of taxing the relatively rich, Professor Pigou argues persuasively that an inheritance tax has "strong claims upon the attention of statesmen."[1] His argument is irrespective of whether our first, second, or third principle is adopted in framing such a tax. From the point of view of production, the case for the inheritance tax is especially strong, if its payment has been completely insured against in advance, so that there is no temptation to those who have to pay it to sell part of the inherited property in order to raise the money, and stronger still, if the insurance premiums are likely to be paid with money which would otherwise have been spent and not saved.

It is also important to remember that the effect of this, or any other, tax in checking production may be more than offset by the way in which the public authority, which imposes it, deals with the proceeds. If the latter are treated as capital or, as is sometimes said, "devoted to capital purposes," such as the reduction of the National Debt, or the planting of trees, the net effect of the raising and spending of such revenue will generally benefit production.[2] The belief, not always well founded, that an inheritance tax tends to "fall on capital" to a greater extent than other direct taxes, is so common that it is often proposed that its proceeds should be thus treated.

[1] See *Wealth and Welfare*, pp. 352–354 and 375–377.

[2] In the cases both of raising and of spending, we need, for completeness, to take account not only of the effects of the fact, but of the effects of the expectation of the fact. But the latter are probably not very important, as far as the "spending" of public revenue on capital purposes is concerned.

"The State," says Professor A. S. Johnson, "can adopt the same policy which every prudent person recommends to the private heir. It can treat capital acquired through inheritance as a fund to be maintained intact. Let the State set apart, as a permanent investment fund, the proceeds of all inheritance taxes, and depletion of the national capital will at once cease."[1] This may be a good policy, but not precisely for the reason given.[2]

§5. There is, however, a fourth alternative principle, which might be, though it has not hitherto been, adopted in framing an inheritance tax. This has been propounded by Professor Rignano in his remarkable and curiously little known book, *Di un Socialismo in Accordo colla Dottrina Economica Liberale.*[3] This principle is that of an inheritance tax, which shall be "progressive in time," or, in other words, such that the rate of tax shall increase with the number of times that the property subject to it has already changed hands through inheritance. Thus, to take the illustration given by Professor Rignano himself,[4] suppose that the inheritance tax on a first transmission by inheritance is one-third, on a second transmission two-thirds, on a third transmission the whole. Suppose that A, who receives nothing by inheritance, acquires by work and saving property of value

[1] *Journal of Political Economy*, 1914, p. 169.

[2] An example of how not to carry out this policy is furnished by the decision of Mr. Austen Chamberlain that his 4% Victory Bonds, 1919, issued at 85, shall be accepted at their par value in payment of death duties. Under this plan an attempt is made to improve the national credit at the expense of the real, if not the apparent, yield of the death duties. For, unless the market value of Victory Bonds rises to par, which for some time to come is unlikely, those who pay in these Bonds will escape part of the death duties. For example, if the market value is 75, Mr. Chamberlain will receive, as the equivalent of £100 of revenue, what he could have bought in the open market for £75, while the burden of death duties on the taxpayer will be reduced by 25%.

[3] The page references which follow are to the French edition. Compare Part II., Chapter VII. § 14 above.

[4] *Op. cit.*, p. 42.

a, which he leaves by will to B. Then the tax will be $\frac{1}{3}a$ and B will receive $\frac{2}{3}a$.

Suppose that B, by his own work and saving, adds a further amount *b* to his inheritance of $\frac{2}{3}a$, and leaves the whole by will to C. Then the tax will be, as to the $\frac{2}{3}a$, two-thirds and, as to the *b*, one-third. Therefore the total tax will be $\frac{4}{9}a + \frac{1}{3}b$, and C will receive $\frac{2}{9}a + \frac{2}{3}b$. Suppose that C, by his own work and saving, adds a further amount *c* to his inheritance and leaves the whole by will to D. Then the tax will be, as to the $\frac{2}{9}a$, the whole, as to the $\frac{2}{3}b$, two-thirds, and as to the *c*, one-third. Therefore the total tax will be $\frac{2}{9}a + \frac{4}{9}b + \frac{1}{3}c$, and D will receive $\frac{2}{9}b + \frac{2}{3}c$. And so on indefinitely, each person's addition, if any, to his inheritance being wiped out by taxation in the course of three transmissions. "In effect, on the death of the grandson of each accumulator, or more generally of the heir of his immediate heir, the State would have nationalised a third of the personal fortune of the deceased, seven-ninths of that accumulated by his father, and the whole of that accumulated by his grandfather. One could modify these rates and adopt any scheme of progression which seemed most suitable."[1]

Professor Rignano thus puts forward this principle of taxation in general form, noticing certain other proposals which have been made as special applications of it.[2]

[1] *Ibid*, p. 47.

[2] For example, the proposal of Huet, *Règne Social du Christianisme* (1853), p. 271, that no one should be allowed to leave by will anything beyond what he had acquired by work and saving during his own lifetime, or in other words, that property should be transmissible once by inheritance free of tax, but that at the second transmission the State should take the whole. Also Russell Wallace's proposal, in his *Land Nationalisation*, that the State should assume ownership of all land, and guarantee the proprietors' current incomes therefrom for two lives, but not longer. A tax on Professor Rignano's principle may be contrasted with a special tax on "War Wealth." The former discriminates against wealth created a long time ago; the latter against wealth created a short time ago. The main argument for the former is economic, for the latter sentimental. The contrast illustrates the distinction between economy and equity.

He claims that it affords the only practicable method of nationalising private capital, while at the same time stimulating, rather than discouraging, work and saving by private individuals.[1] Such a tax, however, apart from the desirability of using it as an instrument of nationalisation, which we may regard for the moment as an open question, has certain obvious merits. We may therefore begin by enquiring into its practical applicability.

§6. The chief practical problem, which is involved, is that of distinguishing, on the death of any person, between that part of his property which is due to his own work and saving and that part which is due to the work and saving of various individuals from whom, directly and indirectly, he has inherited. Professor Rignano points out that this division of the dead person's property into different parts, for the purpose of applying different rates of taxation, need only be "a quantitative and not a qualitative division."[2] That is to say, no attempt need be made to trace particular pieces of land, or particular blocks of shares, in their passage by inheritance from one proprietor to another. It will be sufficient to divide the dead person's property into various parts according to their total value. This procedure will, indeed, be necessary, since particular property rights change hands, not only by inheritance and gift, but also by sale. If, however, the division is made on the basis of values, it will be necessary, ideally, to make an allowance for changes in value, which are due, not to the action of the proprietor, but either to changes in the general rate of interest, or to changes in the relative value of different sorts, or particular pieces, of property. If such an allowance is not made, the alleged advantages of a tax on this principle will not be fully realised. In

[1] *Ibid*, pp. 40–41 and 48–49.
[2] *Ibid*, p. 43.

practice, it would be possible, though difficult, to allow for the effects of changes in the general rate of interest, but almost impossible to allow for the effects of other changes. This, however, should not be fatal to the application of the principle, though it would lead to a certain number of "hard cases," and also, in the opposite sense, to a number of "soft cases," of which less is likely to be heard.

Apart from this question of allowances, the practical application of the principle involves little more than a sufficiently elaborate system of book-keeping by Government tax-collectors. It will be necessary for the latter to keep records showing the amount of property received by individuals by inheritance, and probably also by gifts *inter vivos*, and the sources of such receipts, *i.e.*, whether the latter consist of property already inherited, and if so, how many times already inherited. There seems no doubt that a modern state could create an adequate system of book-keeping of this kind, if the results were held to justify the cost and trouble involved. Nor would the cost and trouble be so great as might be imagined at first sight. For, in the first place, there would presumably, though Professor Rignano does not suggest it, be a minimum value fixed, below which inherited property would not be taxable, no matter how many times it might already have changed hands by inheritance, and, in view of the very unequal distribution of property in modern communities, the number of individuals, for whose property elaborate records would be necessary, would be only a small fraction of the population. In this country at the present time it would probably be less than half a million. In the second place, as regards inheritance, though not as regards gifts *inter vivos*, Professor Rignano rightly points out that a complete record of an individual's property and its distribution at his death, involving entries in

the accounts of all substantial beneficiaries, would afford sufficient data for the application of his principle.[1] There seems no reason to suppose that the fiscal book-keeping necessary to carry out the scheme would, at the worst, be one-tenth part as elaborate and expensive as that involved in the administration of the National Health Insurance Act.

The adoption of the scheme might also be facilitated by other changes in the law. Thus Professor Rignano suggests that Bearer Bonds might be prohibited,[2] and Professor Pigou throws out, but does not develop, the suggestion that "it might even be necessary for a law to be passed requiring all legacies to be settled, in such wise that the heirs could not touch the principal."[3] The latter idea will be discussed in the next chapter.

Even if it were to be decided that the principle, in its more elaborate or drastic forms, is not administratively practicable, it might still be possible to introduce it in a simplified form by making a distinction between a person's own savings and his inheritances and gifts, whether direct or indirect, and by imposing at his death two rates of taxation, a lower one for his own savings and a higher one for his inheritances and gifts.[4] In the discussion, which follows, of comparative effects, the latter principle will be referred to as the simplified Rignano principle, and will be contrasted with the full Rignano principle, which will be taken to involve at least three, and possibly more, different rates of tax according to the number of hereditary transmissions. Following the analogy of the terms "earned" and "unearned" income, we may conveniently speak of a

[1] *Ibid*, p. 59.
[2] *Ibid*, p. 58.
[3] *Wealth and Welfare*, p. 377.
[4] If it is found impossible to allow for fortuitous changes in the value of property, such savings, for purposes of taxation, will be increased by any fortuitous appreciations of any property held by him, and diminished by any fortuitous depreciations.

person's own savings as his earned property, and of his inheritances and gifts as his unearned property.

§7. We may now compare the effects on inequality and on production of raising a given sum by means of an inheritance tax based on the full Rignano principle, or on the simplified Rignano principle, with the effects of raising the same sum by means of an inheritance tax based on the first, second, or third principles discussed in §§2–4 of this chapter. It will be noticed that neither form of the Rignano principle involves any graduation according to amount, except presumably the exemption of inheritances below a certain amount from the operation of the tax.

The effects on inequality of a tax on the Rignano principle depends upon the proportion at different points of time between the totals of earned property and of unearned property, and further, if the full principle is being applied, upon the proportions between the totals in different categories of inherited, or unearned, property, which it is proposed to tax at different rates. Other things being equal, the effect of such a tax in diminishing inequality will be greater, the smaller is the proportion of earned to unearned property, and, if the full principle is being applied, the larger is the proportion of inherited property to be taxed at the highest rate to total property in private hands. It is clear that, in general, a tax based on the full principle will diminish inequality more than a tax based on the simplified principle. Since a tax based on the Rignano principle could not easily be made retrospective, owing to the need to set up fresh administrative machinery, which could only operate easily on events taking place after it was set up, the effects of such a tax could only make themselves felt gradually, and comparisons with the effects of a tax based upon the other principles, which we have been considering, could only, therefore, be made after a certain period had

elapsed. In the absence of knowledge as to the proportions between the amounts of different categories of property just referred to, it does not seem possible to make any very confident predictions as to comparative effects on inequality. But it seems likely that a tax based on the simplified Rignano principle would generally do more to diminish inequality than a tax based on the third principle, but less than a steeply graduated tax based on either the first or the second principle. On the other hand, if the proportion of earned to unearned property was small, and the proportion of property taxable at the highest rate was large, a tax based on the full Rignano principle might very likely diminish inequality as much as a pretty steeply graduated tax based on either the first or second principles. These comparisons, however, are speculative and uncertain.

§8. But, as regards comparative effects on production, we can stand on firmer ground, and it is here that the strongest argument for the adoption of the Rignano principle is forthcoming. Professor Pigou, in his carefully balanced comparison of the effects of different sorts of taxes upon production, concludes, as regards the plan proposed by Professor Rignano, that " there can be no doubt that a given revenue could be obtained by this plan, in such wise that the expectation of the levy of it would invoke a smaller restrictive effect upon the supply of waiting than is associated with the existing system of death duties."[1] More roughly, a tax on the Rignano principle diminishes the *will to save* less than other types of inheritance tax of equal amount. This seems clear enough, but it is not all that can be said on the matter. For it is arguable that the will to save may, as a result of the adoption of a tax on the Rignano

[1] *Wealth and Welfare*, p. 377.

principle, be actually increased, and also that the will to work may be stimulated.[1]

Professor Rignano himself contends that a tax according to his plan would lead to more work and saving by those whose property would on their death be subject to it, than would take place, if there were no inheritance tax of any kind in force.[2] "Experience teaches us," he says, "that the possessors of great fortunes, being able to leave to their children the property which they themselves received by inheritance, are in no way stimulated to increase these still further. Generally they spend their considerable incomes in luxury and pleasure. . . . It is the existing right of bequest which leads them to dissipation instead of stimulating them to save, even when they are very far seeing and very much attached to their families. But these men would conduct themselves quite differently, if one said to them, 'take care; of the wealth which you have yourselves inherited, you will only be able to leave to your children a small fraction, or even nothing at all, whereas of that which you have yourselves accumulated, you will be able to leave a very considerable part.' This argument would dispose them more than any other to economise their foolish expenditure and to transform part of their income into beneficent productive capital. Furthermore, whatever his social position, an affectionate father would be far more stimulated to work and saving, when each hundred francs that he made would represent for his

[1] Professor Pigou (*ibid*, p. 365 n.) deliberately leaves out of account "as of secondary importance, the indirect effect of the expectation of diminished resources in inducing the rich to do more work." As regards inheritors it may generally be of secondary importance. The argument in the text is concerned with those who work or save in order to leave property to their children.

[2] *Ibid*, pp. 40–41 and 65 ff. He quotes (p. 65), while disagreeing with, Professor Wagner's opinion that a heavy inheritance tax, even of the ordinary kind, would actually stimulate saving by parents desirous of leaving an adequate fortune to their children.

children a value double or treble that of each hundred francs of his own inherited property."[1]

This line of argument is very plausible. It resembles Professor Gonner's argument that a fall in the rate of interest tends to increase saving, since more saving than before is now necessary in order to secure an amount of property yielding a given income.[2] The latter argument indeed fails, partly because, owing to the very unequal distribution of property in modern communities, a comparatively small number of rich people do the bulk of the saving and invest, for the most part, merely income surplus to habitual expenditure. These are tempted to save more by a higher, and less by a lower, rate of interest. Those who invest in order to secure from their investments a certain minimum income and tend, therefore, to save more when the rate of interest falls, though perhaps more numerous, are less rich than the former class, and their savings much less important in the aggregate. If the latter class predominate in the will to save, the former predominate in the power to save.

But Professor Rignano's argument is stronger than Professor Gonner's. For he suggests, in effect, that the adoption of his plan would place many members of the former class in the position of the latter class, and would reinforce their power to save with a strengthened will to save.[3] Looked at from another angle, the effect of the adoption of his plan would be to raise the marginal utility of savings made by themselves, while reducing

[1] *Ibid*, pp. 67–68.

[2] Compare Gonner, *Interest and Saving*, p. 67, and Marshall, *Principles*, pp. 234–5.

[3] Some light might be thrown on the matter by a study, if the facts were available, of the conduct of life tenants of property, which at their death is to pass away from their family, as compared with tenants in fee simple. Probably such life tenants work harder and save more, as a general rule, than similar tenants in fee simple.

the marginal utility to them of the savings inherited from previous generations. For the marginal utility of either sort of savings depends largely upon the power of leaving them to their children. Moreover, Professor Rignano relies upon an increased stimulus to work among those desirous of leaving property to their children.

It is not easy to be sure whether Professor Pigou is right in thinking that an inheritance tax on Professor Rignano's plan would discourage saving, but discourage it less than other sorts of inheritance tax, or whether Professor Rignano is right in thinking that such a tax would actually stimulate work and saving. But it is clear that, from the point of view of its effects upon production, a tax based upon the Rignano principle is superior to a tax based upon any of the other three principles considered at the beginning of this chapter, and it is also clear that, if administratively feasible, a tax based upon the full Rignano principle is better than one based upon the simplified Rignano principle.

§9. We may now turn to a difficulty which presents itself in connection with all inheritance taxes, namely, the possibility of evasion of the tax by the transfer of property by gifts *inter vivos*, that is to say, by gifts from one living person to another. In principle, such gifts should be treated, for purposes of taxation, on the same footing as inheritances, for to acquire property by gift is substantially the same thing as to acquire it by inheritance. In practice, it seems hardly possible either to tax all such gifts as inheritances, or effectually to prohibit them altogether, as has sometimes been suggested.[1] But various considerations suggest that the seriousness of the problem is less than might be imagined. Small gifts *inter vivos* need not trouble us. They are only glorified tips and of no concern to either tax-gatherer

[1] Compare Rignano *op. cit.*, p. 27.

or statesman. Substantial gifts, on the other hand, will generally be traceable, and consequently taxable. In countries where the law of legitim prevails, gifts *inter vivos* are not allowed to defeat the law, nor are fictitious sales for a nominal purchase price, by means of which gifts are often sought to be concealed.[1] Somewhat similar problems of " disappearing assets " have been successfully dealt with by British lawyers in connection with the law of bankruptcy and the law of trusts. And already under the British law, gifts made within three years of death[2] are subject to death duties.

Moreover, if we adopt a tax on the Rignano principle, the inducement to evade the tax by gifts *inter vivos* will be to some extent diminished, since such gifts will tend to diminish that part of a person's property, which at death will pay the lowest rate of tax, while, if in addition we adopt the plan that all inherited property must be settled on trustees, we reduce the possibility of gifts still further.

In any event, the desire of rich men to die *visibly* rich, and their disinclination to part with control over their property, the human weaknesses of vanity and love of power, will always strongly check the tendency to make gifts *inter vivos*. And such gifts as do take place, as has already been noted, are likely somewhat to diminish both production and inequality and to increase the welfare derivable from a given expenditure. Harcourt in 1894, when it was foretold that one of the effects of his increased death duties would be to cause fathers to give their property away to their sons during their lifetime, replied, " I am on the side of the sons."[3]

[1] Compare the American case *In re Gould*, where a father assessed the value of his son's services in his business at five million dollars, but the Court held that the alleged contract was illusory, and that the five million dollars were a gift, and liable to inheritance tax. See Read, *Abolition of Inheritance*, p. 298.

[2] And charitable gifts within one year of death.

[3] A student in one of my W.E.A. tutorial classes, who is also on

§10. So far we have been considering inheritance taxes in the ordinary sense, that is to say taxes imposed on inherited property at the moment of its inheritance through the death of its previous owner. It remains to notice that it is possible to impose a special tax upon inherited property, or the income therefrom, at other times than when property changes hands by reason of death. Given an administrative system, under which every individual's holding of inherited property was known, there would be no difficulty in imposing such a tax, and its general effect would be similar to that of a tax on the Rignano principle upon property passing at death. One of the simplest methods of imposing such a tax would be by an amendment of the income tax, distinguishing three categories of income, instead of two, as at present, namely, income from work, income from earned property, and income from unearned or inherited property, and taxing the second category at a rate intermediate between the first and third. This would go some way to meet the objection to the present income tax, which has been dwelt upon by Professor Pigou[1] and others, that it differentiates against saving. It may be objected that this distinction between earned and unearned property is not strictly equitable, since the possession of a large amount of unearned property facilitates the accumulation of earned property. But it is equally true that the possession of a large amount of property facilitates the acquisition, through expensive training, and otherwise, of a large income from work, and this fact does not invalidate the broad distinction between earned and unearned income.

the side of the sons, has suggested to me that a tax on individual inheritances might be graduated, not only according to the amount inherited, but also according to the age of the inheritor, an addition of, say, 1% being made to the duty for each year by which the inheritor's age exceeds 45.

[1] *Wealth and Welfare*, p. 370.

CHAPTER X

SOME SUGGESTIONS FOP THE REFORM OF THE LAW OF INHERITANCE.

§1. The ideal law of inheritance, whether from the economic, or from a wider, point of view, will vary with the special conditions of different communities and different ages. It will vary with different forms of social organisation and of the general law of property. It will depend also upon current opinion, both as to what is economic and as to what is just.

Independently of larger changes of a socialistic character, though perhaps concurrently with them, it seems likely that modern communities will move towards the extinction of inherited individual wealth, at any rate above certain comparatively small amounts, and that in this movement taxation will be the chief implement of progress. Since, as we have seen, the institution of inheritance is one of the most important causes of the inequality of incomes, this movement is likely to be beneficial, in so far as it will tend to reduce inequality. On the other hand, it may be harmful, if it tends to check the growth of productive power. For, as we have also seen, the only solid economic justification of the institution of inheritance in its present form is that it is one of the most powerful engines yet discovered for the accumulation of capital. The object of the present chapter, therefore, is to explore some possible modifications of this institution and to consider how best to secure that gain from diminished inequality shall not be offset by loss from diminished productive power. The proposals which will be made have special application to the United Kingdom and are put forward tentatively.

For the whole question needs far more consideration than it has yet received.

§2. At the present time inheritances of moderate amount are generally beneficial both to the recipients and, indirectly, to society, and the same is true of the ownership of a moderate amount of individual property, whether acquired by inheritance or not. But an immoderate amount of property in the hands of a single individual, and still more an immoderate inheritance, has a quality of freakishness, which often makes it a source of moral harm to its possessor, no less than of wasted potential welfare for others.

The line of division between what is moderate and what is immoderate depends on opinion. An inheritance of a million pounds is clearly immoderate; an inheritance of £500 is clearly moderate. As things are, it is well that a man, even in the prime of life, should have a nucleus of income from property, as a reserve against misfortune, but it is not well that such a nucleus should be so large as to absolve him from the desire to work in order to increase his income. In future the fuller development of collective property and of income-bearing civil rights may remove the need, or at any rate lessen the relative advantage, of owning property. But that time has not yet come, and our starting point in this chapter is the state of things which exists to-day.

The matters to be discussed fall under six heads: (1) intestate succession; (2) the legitim; (3) other restrictions, apart from taxation, on freedom of bequest; (4) the problem of gifts *inter vivos*; (5) the taxation of inherited wealth; (6) additional machinery for securing accumulation of capital.

INTESTATE SUCCESSION.

§3. It has already been remarked that any stiffening of the rules of intestate succession, in a sense disagreeable

to property owners, will only stimulate will-making, and make intestacy even rarer than it is now among those who have anything appreciable to leave. But it is no argument against the improvement of any law that it will operate but seldom. Moreover, certain of the changes which seem desirable would probably not be objected to by the majority of property owners, and, in any case, so long as substantial freedom of bequest is retained, no rules of intestate succession can have any restrictive effect upon the work or saving of property owners, since, if they dislike these rules, they have only to make a will in order to evade them.

Three principles, potentially in conflict, are commonly suggested for the regulation of intestate succession; first, regard for the presumed wishes of the intestate, second, regard for the interests of the intestate's dependents and other relatives, third, regard for the interests of the community as a whole. I see no ground for following the first principle at all, except in so far as it may happen to coincide with the second or third. If any person either carelessly neglects to make a will, or deliberately chooses not to do so, I see no reason why the law should attempt to guess what sort of a will he might have made, and then, in effect, make it for him. Whatever may be said of paternal government for the living, paternal government for the dead is an absurdity. The other two principles may be readily combined. The rules of intestate succession should have regard to the interests of the community, subject to the reasonable interests of the relatives of the deceased.

A preliminary change, which seems desirable but which stands on rather a special footing, is the abolition of primogeniture in the English law of intestacy and the assimilation of realty to personalty. This reform has been frequently advocated,[1] and would probably arouse

[1] It was advocated by Maitland (*The Law of Real Property, Collected*

little opposition at the present time. For those large landowners, who desire that their land shall pass to their eldest son, can arrange for this either by will or by settlement.

Reverting to our main principle, we have to decide what are the interests of the community in respect of the property of intestates, and what are the reasonable interests of relatives. The interests of the community evidently are that, in general, such property should pass into the possession of the government, and be either held or sold by it, according to circumstances.[1] In an age of colossal public debts this is clear enough and, apart from the present urgency of debt redemption, the public finance of every country would be facilitated by the building up of a mass of revenue-yielding public assets, though opinions will differ as to the form in which such assets should be held.

The interests of relatives, of course, are that the property should go to them, and it is these interests which, subject to taxation, the law at present recognises.

Restrictions of three kinds seem called for here, in

Papers, I., pp. 162 ff) chiefly on the ground that it would greatly simplify the law. In particular it would torpedo the elegant, but tiresome, doctrine of equitable conversion. It was advocated by Sidgwick (*Elements of Politics*, pp. 107–8) on the ground that the present law is often not realised by small owners of land and houses. The same fact, and the hardship liable to result from it, are clearly brought out in the *Report of the Land Enquiry Committee* (1914), II., pp. 481–2. This reform was embodied in the Land Transfer Bill (1887), but was rejected by the House of Lords, in spite of the support of Lords Salisbury and Halsbury, the former of whom made on this occasion the famous remark, "My Lords, we are too much of one mind." It was also embodied in an abortive Bill introduced by Lord Haldane in 1915, and again in the Law of Property Bill introduced into Parliament in 1920.

[1] It may be objected that it is not in the interests of the community that widows and infant children should be left penniless. This is true. But it is true of all widows and infant children, and not merely of those, who were previously dependent upon a wealthy person. The community should make provision for all such cases out of public funds without any "stigma of pauperism."

order to effect a better compromise with the interests of the community.

The first and most obvious restriction is to narrow the range of relatives entitled, in default of nearer relatives, to a share in an intestate's spoils. This, of course, is equivalent to extending the range of the law of escheat.[1] At present no relative, however remote, is legally debarred from the right of succession. As Professor Ely says, "the extent to which intestate collateral inheritance is carried is the survival of the sentiment of the time when people lived in clans and is ridiculous in our day."[2] Opinions will differ as to how far the range should be narrowed. Bentham proposed[3] to limit the right of intestate succession to

(1) Direct descendants and surviving spouse of the intestate,
(2) Parents of the intestate,
(3) Direct descendants of parents, *i.e.*, brothers and sisters, nephews and nieces of the intestate, and their children.

The effect of this proposal would be to cut out grandparents, unlikely beneficiaries in any event, and the miscellaneous multitude of cousins. It is a very moderate proposal. Mill would have gone further and cut out all collaterals, even brothers and sisters, while retaining the rights of parents.[4] But this is open to the objection that it gives rights to parents, but not to brothers and sisters, though the latter would generally need the money more and have greater opportunities for making good

[1] As Sidgwick points out (*ibid*, p. 105) "the question can only be between distribution within a defined circle and appropriation by the community." Compare, however, Ely, *Property and Contract*, I. pp. 424 and 438. See also Hopkinson, *Rebuilding Britain*, p. 10.

[2] *Outlines of Economics*, p. 263. Compare Read, *Abolition of Inheritance*, pp. 35–6.

[3] *Principles of the Civil Code*, Part II., Chapter III.

[4] *Principles of Political Economy*, p. 890.

use of it than the former. It seems an undesirable principle that the property of one generation should revert to an older generation, except under an express will or settlement. In my opinion, only the surviving spouse and the direct descendants of the intestate should be entitled to inherit, and they only subject to conditions, which will be explained below.

Professor Ely has suggested[1] that the right to inherit and the duty to support should be made reciprocal. A should not be legally entitled to inherit from B, either on B's intestacy or under any form of the law of legitim, unless A was also legally liable to maintain B in case of indigence. Such a correlation of right and duty might, perhaps, be desirable in a community, where a substantial equality of incomes prevailed. But, given the great inequality which is found in modern communities, the correlation would have no practical reality. The incidence of the right would, in fact, be upon one section of the community, the incidence of the duty upon another. The rich would exercise the right, while the poor would perform the duty. Nominally, pauperism might be cured; actually, poverty and inequality would be increased.

The second desirable restriction on the right of relatives to inherit on intestacy is a restriction in respect of time. As regards large sums at any rate, there seems no good reason why anything more than life interests, with remainder to the State, should be allowed to those who succeed on intestacy. In principle, it would appear desirable to transfer all intestate property to the Public Trustee, subject to life interests to the surviving spouse and to any direct descendants living at the time of the intestate's death. On the death of all these persons

[1] *Outlines of Economics*, p. 363. At present in this country a parent has the legal duty to support his children up to the age of sixteen, while a child has no legal duty to support his parents.

the property would revert to the State.[1] In practice, since few intestates are wealthy, and in order to exempt "effects," in the form of furniture, clothes, etc., up to a moderate amount, it would be well only to transfer to the Public Trustee intestate property in excess of a certain value, say £1,000,[2] and to let the residue pass absolutely to the relatives entitled. This law, even if, as is probable, it seldom operated, would, by the reaction of law on opinion, beneficially loosen the almost superstitious attachment of many minds to the idea of rigid and perpetual rights of inheritance.

The third desirable restriction is a restriction in respect of amount. Whatever may be thought of the practicability or desirability, in other cases, of Mill's proposal to fix a maximum sum, more than which no one shall be allowed to inherit, it seems obviously practicable and desirable in the case of intestacy. A maximum, say £5,000, should be fixed for the annual income payable by the Public Trustee to the surviving spouse or any direct descendant of an intestate, and the balance, if any, should pass directly to the State. Such a maximum, once fixed as a matter of principle, might be gradually reduced, as public opinion on the subject of inheritance developed.

THE LEGITIM.

§4. The effects of the legitim, as compared with substantial freedom of bequest, have been considered in Chapter VII above. No important reduction of inequality, or other incidental advantage, is to be antici-

[1] This proposal, if applied to a country where the law of legitim prevailed, would involve presumably a corresponding restriction on rights to the legitim. Otherwise a property owner could defeat part of the object of the law by simply refraining from making a will.

[2] It might be preferable to make this sum vary with the number of children, *e.g.*, £800 for each child. Moreover the excess, to be worth transferring, should be substantial, say £1,000.

pated from the adoption in this country of the legitim in its ordinary European form. The only point, which seems worth considering, is whether a surviving spouse should not enjoy, as in most of the United States, certain indefeasible rights of inheritance. For this there is a good deal to be said, but the question is not of great importance. I suggest that such rights, if granted, should consist of a life interest only, and should be limited, not only to a certain proportion, say one-third, of the property of the deceased, but also to a certain absolute amount, say an annual income of £5,000. Above a fixed minimum the smaller of these two limits should govern the indefeasible rights, though, of course, a testator would have the power to leave a surviving spouse either a larger annual income, or an absolute, and not merely a life, interest.

It does not seem likely or worth while, that any country, whose law now recognises the legitim, should adopt substantial freedom of bequest as found in England. But the legitim might, I think, with advantage be modified, as suggested above, by making it depend, above a fixed minimum, either on a certain proportion of the total property passing at death, or on a certain absolute sum, whichever be the smaller. This change would weaken one objection to the legitim, which has already been noticed, namely, that it unduly restricts the power of wealthy testators to leave money for public purposes.

OTHER RESTRICTIONS, APART FROM TAXATION, ON FREEDOM OF BEQUEST.

§5. Restrictions on freedom of bequest in England in respect of purpose and time have been considered in Chapter VI §3 above, where it was argued that, from the economic point of view, these restrictions are sound, with the exception of the Rule against Accumulations, which limits the power of a settlor or testator to order that income from property shall accumulate at compound

interest. I suggest that this limitation should be abolished, and further, that orders for accumulation should be taken out of the operation of the Rule against Perpetuities. For continued accumulation on a large scale is essential to the economic progress of modern communities, and many modern forces, which work for a reduction of inequality, are apt at the same time to work against accumulation. In practice the effects of this reform may be small, but the law should not discourage the socially beneficent vanity of an occasional eccentric, like Thellusson, who desires, not merely to die rich, but to be spoken of many years after his death as the immortal founder of a steadily accumulating fortune. How large a share of the ultimate accumulation should be allowed to pass into the hands of any one individual is a matter to be regulated by taxation.

I suggest that it is desirable to impose two further restrictions on freedom of bequest. In the first place a maximum should be fixed for the amount of any individual inheritance. This is Mill's proposal, already referred to, which seems now to be within the range of practical politics. This limitation, however, can best be imposed by means of taxation, and will be considered below as part of the general question of taxing inherited wealth.

In the second place, a restriction should be imposed on the power of a testator to bequeath the legal, as distinct from the equitable, ownership of property. The conception of equitable ownership is familiar to students of English law, of which it is, according to Maitland, "perhaps the most distinctive achievement."[1] Under a trust or settlement, the trustee has the legal ownership, but the beneficiaries under the settlement have the equitable ownership. The trustee is responsible for

[1] *Equity*, p. 23.

paying over the income to the beneficiaries, but the latter have no power to sell, or to interfere in the management of, the property.

The functions of the Public Trustee in this country are still in their infancy.[1] My suggestion is that, as regards inherited wealth, they should receive a large extension. I have already proposed that the legal ownership of all intestate estates, in substantial excess of £1,000, should be vested in the Public Trustee. I propose further that, subject to certain exceptions, the legal ownership of all property passing under a will should likewise be vested in him, the income from such property being paid, of course, to the beneficiaries named in the will.

The advantages of such an arrangement would be two. First, the accumulation of capital would be assisted by the prevention of *de*cumulation. An inheritor would no longer be able, as he is now, to sell inherited property and spend the proceeds.[2] Second, and even more important, effective machinery would be provided, as will be explained in a moment, for the application of the Rignano principle to the taxation of inherited wealth, and for further developments which may be thought desirable in the future.

[1] He began to operate on January 1st, 1908, and on March 31st, 1919, was administering 14,522 trusts of a total capital value of £129,000,000. For this and other interesting information see the two *Reports of the Committee on the Organisation of the Office of the Public Trustee* (Cmd 421 and 422 of 1919) and also the annual *Reports of the Public Trustee*. New Zealand has had a Public Trust Office since 1872, (Cmd. 422, p. 9).

[2] Decumulation does not, of course, involve the destruction by immediate consumption of the property which is sold. This property, in so far as it consists of material capital, is not, in general, rendered less effective for production, by reason of a change in its ownership. Decumulation takes place owing to the fact that new savings are diverted from the creation of new, to the mere purchase of existing, material capital. To reduce the possibility of decumulation still further, it might be provided that loans on the security of the income from settled property should be void.

How wide the exceptions should be to this extension of the Public Trustee's duties is a matter for argument. It is most essential that he should be given the custody of large inheritances, for it is here that both taxation and the prevention of decumulation are most important. On the other hand, it is not worth while to burden him with the custody of a multitude of small inheritances, except in so far as testators expressly desire it.[1] In the case of intestate estates, I have suggested that no estate worth less than £1,000 should pass to him, and that a rebate of £1,000 should be allowed on larger estates for free disposal by those entitled to inherit. In the case of estates passing under a will, a higher minimum, say £2,000, might be substituted, and it might further be provided that all small individual inheritances forming part of large estates, say up to £1,000, might be paid over direct to those entitled, without passing into the custody of the Public Trustee. Bequests for educational and other public purposes might also be paid over direct. In addition, there will be certain sorts of property, which it will be inconvenient for the Public Trustee to hold. Highly speculative businesses and most capital invested in a private business, as distinct from a joint stock company, are examples. But some difficulties of this sort could be got over by empowering him to sell property involving much detailed administration and to invest the proceeds in more convenient securities.[2]

Further, apart from wills and intestacies, the time has,

[1] He does in fact administer a considerable number of small estates at present, and the administration would be cheapened by the throwing of the capital of all these estates into a common fund, as is done in New Zealand, and not attempting to keep them all separate, as is done here. (Cmd. 422, pp. 9–10). Many of the large estates might also be thrown into such a common fund.

[2] There seems no reason why he should not manage landed property, of which he already holds £11,000,000 worth, with an annual rent collection of £500,000, together with mortgage investments in land valued at over £3,000,000.

I think, come when it should be provided by law that the Public Trustee shall be the trustee appointed in all settlements *inter vivos*, when the sum settled exceeds a certain amount, say £2,000. This change would have the effect of concentrating in the Public Trustee's office a further mass of information of great value to the tax collector. It might also, perhaps, be provided that no gifts of capital *inter vivos*, of a value exceeding, say, £2,000, should be valid except under a settlement, and that all settled property should be liable to inheritance tax on the death of the settler.

GIFTS INTER VIVOS.

§6. The problem of gifts *inter vivos* has been referred to in Chapter IX §9 above. The danger is that such gifts should be made on such a scale as to defeat the object of legislation designed to reduce the importance of inherited wealth as a cause of inequality. It has been argued that this danger is less grave than is sometimes supposed. The proposals of the preceding section of the present chapter would reduce the danger considerably. It may be repeated that in all countries, where the legitim is recognised by law, gifts *inter vivos* are not allowed to defeat the legitim, but that we must face the possibility that gifts may be disguised as sales, the purchase price being fixed by agreement very much below the market value.

THE TAXATION OF INHERITED WEALTH.

§7. The comparative advantages of different methods of taxing inherited wealth were discussed in the last chapter. It was there argued that, from the point of view of its effects on production, a tax on the Rignano principle was preferable; from the point of view of its effects on inequality, a graduated tax on individual

inheritances. I suggest for practical use a simple combination of these two taxes.

On the death of any person owning more than a certain amount of property,[1] his estate should first be subjected to a tax on the simplified Rignano principle. This tax should only fall on that part of the estate, which the deceased had himself acquired by inheritance or gift, and should be progressively graduated according to the size of the taxable estate. The net estate remaining after the deduction of this tax should be subject to a second tax based upon the amounts of individual inheritances. This tax also should be progressively graduated and the graduation should be so arranged as to take a hundred per cent. of the inheritance above a certain amount, thus fixing a maximum individual inheritance, as proposed by Mill.[2] The principle of the British Estate Duty, a graduated tax on the total amount of the estate, would be abandoned, and so too would the principle of the British Legacy and Succession Duties, a tax graduated according to remoteness of relationship between the testator and the beneficiary under the will.

The first tax, on the Rignano principle, could not, perhaps, be assessed with perfect exactitude. Part of the property liable to the tax would in many cases escape. But, the larger the proportion of inherited and settled property held by the Public Trustee, the greater the degree of exactitude attainable. Such a tax, as was argued in the preceding chapter, would do more than any other to keep sharp the stimuli to work and saving among the wealthy.

[1] The British Death Duties at present fall on all property in excess of £100. This limit seems to me too low, and I suggest that it should be raised to at least £500.

[2] Ideally, it would be preferable to fix a maximum which any individual might receive, not merely under one will or gift, but throughout his life. But the practical difficulties in the way of such a scheme seem at present to be insuperable.

The second tax presents no difficulty in assessment. At what figure the maximum inheritance should be fixed, is a matter of opinion. To begin with, it might be fixed very high, say at £1,000,000, and then gradually reduced, as opinion developed. The value of the principle involved would not be impaired, even if the maximum initially fixed were grotesquely high.

Neither of these two inheritance taxes need be paid in cash. British Death Duties may at present be paid either in land or in Victory Bonds, and this principle should be extended. A list of securities and other forms of property, which the Government was willing to receive, should be prepared and payment should be accepted in this form. So long as we have a National Debt, Government securities of all kinds should be gratefully received, and many other securities might conveniently be held by the Public Assets Commissioners, who will be referred to in the next section. There is much to be said for the suggestion that revenue from inheritance taxes should be treated as capital and not as income.

Another possible tax on inheritance was suggested at the end of the preceding chapter, in the form of an additional income tax on income from inherited property. Such a tax is not practicable at present, owing to the difficulty of distinguishing inherited from other property. It might become practicable, if the machinery proposed in previous sections of this chapter were brought into existence. But it seems questionable whether it would be worth while to add this further element of complexity to our tax system.

ADDITIONAL MACHINERY FOR SECURING ACCUMULATION OF CAPITAL.

§8. It was proposed in the previous section that inheritance taxes should be payable in any securities or

other forms of property approved by the Government. Government securities received in this way would be cancelled, and other securities or forms of property would be held and the income from them would accrue to the Government, as the interest on Suez Canal Shares and the rent of Crown Lands do now. When the quantity of securities held by the Government became large, it would be desirable to vest them in Public Assets Commissioners, and it would further be very desirable to provide that a certain proportion, say one-half, of the income annually received should be reinvested by these Commissioners on behalf of the Government. The principles governing such reinvestment would depend on public policy. The Commissioners might merely purchase with a view to obtaining a secure income, or with a view to the nationalisation of particular industries, or with a view to obtaining a controlling interest for the Government as shareholder in certain industrial concerns, or again the Commissioners might advance money on loan for the development of new sources of supply of food and raw material in British Dependencies in Africa or elsewhere. But the provision for reinvestment is important, since, if the sums concerned became considerable, it would mark a serious beginning in collective saving as a means of accumulating material capital. Continuous reinvestment of half the annual income would then open out the familiar and seductive vistas of accumulation at compound interest. Any sum accumulating at five per cent. compound interest doubles itself in fifteen years. Or, as Professor Irving Fisher points out,[1] drawing a longer bow of secular fancy, one dollar accumulating at four per cent. would, in less than 800 years, amount to more than the whole present wealth of the world and, in less than 2,000 years, to many times the

[1] *Elementary Principles of Economics*, pp. 485–6.

value of a world composed of solid gold! The danger to the realisation of even a modest scheme of accumulation is, of course, political. The temptation to a Finance Minister, even in time of peace, to take all the revenue from Public Assets, or even to sell a few, in order to balance his Budget, will be strong.[1] But the experiment is worth trying, and in a community which clearly realised both the importance of an increase of material capital and the aggravation of inequality, which results from leaving the greater part of this increase to be provided for by a small wealthy class, it might succeed.[2]

[1] The temptation might be, to some extent, fenced off by removing the Public Assets Commissioners from the direct control and surveillance of Parliament.

[2] The reader should compare with the proposals contained in this chapter Mr. Read's proposals (*Abolition of Inheritance*, pp. 257–261). Mr. Read proposes the limitation of inheritance by means of taxation, but "the limitation to which we should now address ourselves should not apply to the rights of the widow in any case, should provide for the maintenance of the children up to the age of 25, and should not affect inheritances of reasonable size for the present." As a "reasonable size" he suggests a maximum of 100,000 dollars, capital value, "the sum to be gradually reduced on a sliding scale, as the minds of men become more and more capable of understanding the principles of that exact justice that will be attained, when inheritances are abolished altogether." Even a maximum of a million dollars would, he thinks, produce good results. Provision for children, if physically infirm, might, he suggests, be continued beyond the age of 25.

NOTE

INHERITANCE AND LIFE INSURANCE.

One form of inherited wealth is the benefit accruing under a policy of life insurance. Under the present British law, life insurance premiums, up to one-sixth of any person's income, are exempt from income tax, but the benefit under the policy is liable to death duties. Under the scheme of inheritance taxation proposed in the preceding chapter, such benefit would only be liable to the second of our two taxes, and even if, as a result of a steepened graduation, the total yield of the British inheritance taxes was considerably increased, it is probable that many life insurance benefits would be less heavily taxed than they are now.

In the future it is possible, especially if modern communities move in a socialistic direction, that other forms of inheritance will be increasingly replaced by life insurance, and also that, if the average income rises while the inequality of incomes is greatly reduced, there will be a large and steady growth of the habit of insuring one's life. Life insurance, of course, is a form of saving and such a habit, if widely diffused, would be a very valuable force, making for increased productive power. There seems no good reason why the business of life insurance should not now become a government monopoly in this country, as it already is in Italy.[1] For it is a form of business requiring very little of that "constructive imagination," which is always called for, but not always found, in those who conduct industrial enterprises.

[1] For an account of the Italian scheme, originated by Signor Nitti in 1912, see Nitti, *Scienza delle Finanze*, pp. 990–993, and on the general question, Webb, *How to Pay for the War*, pp. 183–217, and Nitti, *op. cit.*, pp. 810–815 and 968–990. The latter discussion contains a large number of further references.

Such a monopoly would put into the hands of the Government a further weapon for reducing to a slight extent the inequality of incomes. This is the monopolist's familiar weapon of discriminating prices. The premiums could be arranged in such a way, that those insuring for large amounts would be required to pay rather more than what was actuarially necessary, and the surplus thus obtained might either be applied to reducing the premiums payable on small insurances or might be treated as public revenue. It would, of course, be necessary, here as elsewhere, to use this weapon of monopoly power with moderation, so as not to reduce the total of premiums below the maximum obtainable.[1] But, used with moderation, it might also increase saving.

[1] For an interesting discussion of the theory of discriminating monopoly see Pigou, *Wealth and Welfare*, Part II., Chapter XII. An obvious reflection suggested by this analysis is that, in order effectively to practise discrimination of this kind, a government must not only have a monopoly of insurance in its own territory, but must also be willing and able to prevent any of its subjects from insuring abroad.

CHAPTER XI

Some Final Considerations on the Inequality of Incomes.

§1. It is not part of the plan of this book, for reasons explained in the Preface, to deal in detail with various other important factors affecting the inequality of incomes. But some of these factors may be briefly referred to here.

§2. The whole field of Public Finance is relevant. On the side of revenue, the more progressive the tax system, the smaller, other things being equal, will be the inequality of incomes,[1] in the estimation of which, of course, it is necessary to consider, not what is taken by taxation, but what is left behind. On the side of expenditure, in so far as it is possible to trace the benefits of expenditure to particular persons, it is likewise true that, the more regressive the expenditure system, the smaller, other things being equal, will be the inequality of incomes.[2] The whole of Public Finance, from this point of view, resolves itself into a series of transfers of real income from certain persons to certain other persons, and a transfer from richer to poorer involves a reduction of inequality.[3] The working out of a system

[1] For a statistical discussion of the extent to which the British tax-system has become more progressive during the war, see Samuel, *Taxation of the People* (*Statistical Journal*, March, 1919).

[2] By analogy with a progressive tax system, a regressive expenditure system signifies a system under which, the smaller an individual's income, the greater the proportion which is added to it by means of public expenditure.

[3] See, for a more detailed discussion, my forthcoming study on the *Measurement of the Inequality of Incomes*.

of Public Finance, which shall best combine reduction of inequality with increase of production, is too large a problem to be dealt with here. But the following elements should probably be embodied in it. On the revenue side, in addition to the treatment of inherited wealth and the creation of public assets on the lines suggested in the last chapter, a steeply progressive income tax and, as an emergency measure, a steeply graduated Capital Levy for the redemption of War Debt and for the deflation of the currency; also, in so far as Government monopolies of consumable commodities and services are created, and the policy of discrimination is practicable, discriminating prices against the richer purchasers. On the expenditure side, in addition to the deliberate increase of income from civil rights, and of expenditure on education, on the lines suggested in Chapters II and III above, there is a stronger argument than is often supposed for subsidies from public funds to various forms of socially desirable expenditure by the poorer classes. Housing is a case in point.[1] The strength of the argument largely depends upon the existence of great inequality of incomes, and would be weakened if inequality were reduced.

§3. Monopolies in private ownership and control generally aggravate inequality. For the ordinary use of private monopoly power is to secure monopoly profits by charging higher prices than would otherwise prevail and, as a rule, those who pay the higher prices are many and those who pocket the monopoly profits are few. Further, as a rule, most of the former are relatively poor and most of the latter relatively rich. Manual and clerical workers can seldom hope to obtain an appreciable

[1] See the argument of Professor Pigou in a lecture delivered at Manchester in 1914 and published by the Manchester University Press, together with a lecture by Mr. B. S. Rowntree, under the title, *Lectures on Housing*, pp. 57–66.

share of monopoly profits, unless their trade union organisation is very strong. When large monopoly profits are concentrated in few hands, reinvested and transmitted by inheritance, the cumulative aggravation of inequality becomes still more serious.

Apart from its effects on inequality, the exercise of private monopoly power tends to increase production, both in the industry directly concerned and also in industry as a whole. As regards the industry directly concerned, and other industries dependent upon it, the case is clear enough, since it is only deliberate restriction of output that can enable higher prices to be charged. As regards industry as a whole, the reader is referred to certain arguments of Professor Pigou, which are incapable of being shortly summarised.[1]

In addition to their tendency to increase inequality and diminish production, powerful private monopolies are often sources of gross political corruption. Modern Governments have, therefore, a threefold reason for watching their growth with an unfriendly eye. In many cases it is open to question, whether any method of control, short of nationalisation, is likely to be effective.[2]

§4. Another factor in inequality, of special importance during recent years, is the possibility of changes in the value of money. A rise in the value of money is, of course, the same thing as a fall in the general level of prices, and a fall in the value of money the same thing as a rise in the general level of prices. The effects of changes in the value of money upon production are disputable. Probably the effects of gradual changes in

[1] *Wealth and Welfare*, pp. 193–8 and 211–4. Of course, if a private monopoly in any industry develops markedly greater productive efficiency than would have been developed under competition, production *may* not suffer, especially if the demand for the monopolised product is elastic.

[2] Compare Pigou, *op. cit.*, pp. 251–289 and *Report of Committee on Trusts* (1918). See also the series of reports issued by Committees of the Board of Trade under the Profiteering Act.

either direction are small. But the effects upon distribution are clear. These effects may all be summed up in the proposition that, if A contracts to make one or more money payments to B, and the value of money falls during the period of the contract, A gains and B loses. There is a transfer of real income from B to A, apart from any transfers specifically provided for in the contract in terms of money. Similarly, if the value of money rises, there is a transfer from A to B. More shortly, rising prices benefit debtors and falling prices benefit creditors. When, therefore, the value of money changes, the consequent changes in distribution depend on the speed and facility with which different classes in the community can revise the various contracts, into which they have entered.[1]

It is well known that the value of money has been falling in most countries since 1896, and has fallen with special rapidity since the outbreak of war in 1914 There is little doubt that the transfers of real income brought about by rising prices have involved an increase in inequality. The great majority of wage earners have suffered a continual depreciation of real wages, which a continual fight for increased money wages has been barely sufficient to offset. In the main, this fight has been, not to improve their economic position, but to maintain it. It has been truly said that "wages go up by the stairs, prices by the lift." The majority of salaried persons, especially civil servants, teachers and clerks, have been in an even worse position than many of the wage-earners, partly because they have lacked a strong trade union organisation. Others who have suffered are those property owners, whose property consists of securities bearing a fixed rate of interest, and

[1] For a classification of the community from this point of view, see Layton, *Introduction to the Study of Prices*, p. 15. Compare Fisher, *Purchasing Power of Money*, pp. 185 ff.

these include, on the whole, many of the poorer property owners. On the other hand, business men generally, farmers, mine owners, and other property owners, whose, property consists of securities bearing a variable rate of interest, have gained.

Over a short period of years, when the value of money is changing rapidly, this is probably the most important cause of changes in inequality. A rise in the value of money would reverse the situation, which has just been described, and would tend to reduce inequality. But one special case calls for notice here. National debts are fixed interest bearing securities, and the holders of Government securities are, therefore, among those who gain by falling prices. Similarly the taxpayers, who have to provide the interest on national debts, are among those who lose. But national debts at the present time are unprecedented in amount, and are largely held by the relatively wealthy. It follows that, if, as a result of deliberate deflation or otherwise, prices are brought down, and a tendency towards reduced inequality thus set up, a tendency in the contrary direction will also be set up, unless a large part of the debt is rapidly redeemed by means of a Capital Levy or other emergency device.

It is sometimes argued that the ideal price level would be one that remained perfectly steady, while production increased.[1] But another ideal, for which there is much to be said, is a price level steadily and gradually falling during a period of economic progress. If this could be provided for, it would constitute a steady tendency towards a reduction of inequality, and would automatically transfer to wage-earners, salaried persons, and many of the poorer property owners, a portion of the increasing real income of the community, independently of any increase in their money incomes. Psychologically,

[1] See *e.g.*, Fisher, *Purchasing Power of Money*, pp. 323 ff.

a given rise in a man's standard of life, brought about by an increase in the purchasing power of a given money income, is probably healthier than an equal rise brought about by an increase in money income, the purchasing power of money remaining unchanged.[1] Professor Fisher's or any similar, scheme for securing a steady price level could easily be modified so as to secure a price level, which should fall by a given percentage during a given period.

§5. The question whether the inequality of incomes is increasing or decreasing in modern communities is one of the most important questions in economics Many writers have attempted to answer it, but their answers do not generally carry much conviction.[2] To determine whether, under modern conditions, inequality tends to increase or decrease, involves the enumeration of a large number of distinct and conflicting tendencies, and the weighing and balancing of them one against the other. In view of the discussion of these tendencies in Parts III and IV of this book, it is obvious that the result of this weighing and balancing may vary greatly both as between different communities at the same time, and as between different times in the same community. Conclusions pretending to much generality on this subject are to be mistrusted.[3]

Whether inequality is actually increasing or diminishing in a particular community during a particular period of

[1] Compare Pigou, *Wealth and Welfare*, p. 28.

[2] See, for instance, Taussig, *Principles of Economics*, II., pp. 205–7, and 243–6, and Ely, *Property and Contract*, I., pp. 326–8, and also the mass of polemical literature, based upon fragmentary statistics, illogically handled, which has been poured forth by Socialists and anti-Socialists on the continent of Europe.

[3] It may plausibly be argued, however, that inequality tends to be greater in industry than in agriculture, (Taussig, *ibid*, I., p. 533, and Watkins, *Growth of Large Fortunes*, pp. 77 and 102–3), and, perhaps, also greater in commerce than in industry (Withers, *Poverty and Waste*, p. 121).

time is, of course, a statistical question, which may be answered independently of general argument regarding economic cause and effect, provided, first, that the relevant income statistics are known, and second, that a measure of inequality is agreed upon and applied to these statistics. But, in fact, the relevant statistics are in most cases very imperfectly known, and the difficulty of agreeing upon a measure of inequality is much greater than is commonly realised.

§6. But logically distinct from these questions, though closely connected with them in practice, stands that other, which has been discussed in various aspects in preceding chapters. How far, without damage, and if possible with benefit, to productive power, can inequality be deliberately reduced? For there is no fatality in this, more than in any other, economic phenomenon. Economic forces are the result of the desires and activities of human beings and, as these desires and activities change, economic forces and the results of economic forces change with them. Various practical policies have been considered above, the judicious increase of civil rights, the improvement of education, the extension of the field of employment of women, the modification of the laws of inherited wealth, various forms of taxation, and the regulation of the currency, in such a way as to secure a steady and gradual increase in the value of money. Behind these lies the larger policy of a gradual reorganisation of industry on a socialistic basis, a policy so large, indeed, as not to be debateable within the limits of this book.

We may recall once more Bentham's saying, "the establishment of a perfect equality is a chimera; all we can do is to diminish inequality."[1] But the idea of deliberately diminishing inequality has, as some French-

[1] *Theory of Legislation*, p. 120.

man has put it, " la puissance d'une idée en marche." How far along the road to complete equality it is desirable to travel, it is not necessary in present circumstances to decide. For that road is far longer than this generation will have power or time to cover. It is enough to know that to travel a long distance along it, without back-slidings in productive power, will open out new prospects and opportunities of unprecedented promise, and will modify profoundly the present class structure of society.

The probable detailed effects of a large reduction in inequality are a most interesting subject of enquiry. But, as against those who approach the whole question by way of estimates of the sum available for " redistribution " on the present basis of production, Mr. Wicksteed has well replied that " the actual effect cannot be arrived at by any such process as doing a division sum. Statements based on such a procedure have a delusive air of solidity and precision, against which we should be on our guard. If we are confident that the world, or any particular community, is rich enough to enable every member of it to live in human comfort, our confidence must be based on our general belief in the versatility and resourcefulness of human intelligence, and our anticipation that the reaction of a more even distribution upon the energies, tastes, and morals of the community will be such as to heighten rather than to lower the effectiveness of human effort."[1]

[1] *Common Sense of Political Economy*, p. 655.

INDEX TO NAMES OF PERSONS.

INDEX TO SUBJECT MATTER.

APPENDIX[1]

THE MEASUREMENT OF THE INEQUALITY OF INCOMES

1. It is generally agreed that, other things being equal, a considerable reduction in the inequality of incomes found in most modern communities would be desirable. But it is not generally agreed how this inequality should be measured. The problem of the measurement of the inequality of incomes has not been much considered by English economists. It has attracted rather more attention in America, but it is in Italy that it has hitherto been most fully discussed. The importance of the problem has been obscured by the inadequacy of the available statistics of the distribution of income in all modern communities. To such statistics as we have, no very fine measures can be applied. The improvement of these statistics is the business of statisticians, but the problem of measuring and comparing the inequalities, which improved statistics would more precisely reveal, should be capable of theoretical solution now. No complete solution is presented in this paper, but only a discussion of certain points of principle and method.

2. First, as to the nature of the problem. An American writer has expressed the view that "the statistical problem before the economist in determining upon a measure of the inequality in the distribution of wealth is identical with that of the biologist in determining upon a measure of the inequality in the distribution of any physical characteristic."[2] But this is clearly wrong. For the economist is primarily interested, not in the distribution of income as such, but in the effects of the distribution of income upon the distribution and total amount of economic welfare, which may be derived from income. We have to deal, therefore, not merely with one variable, but with two, or possibly more, between which certain functional relations may be presumed to exist.

A partial analogy would be found in the problem of

[1] Reprinted from the *Economic Journal*, Sept., 1920.
[2] Persons, *Quarterly Journal of Economics*, 1908–9, p. 431.

measuring the inequality of rainfall in the various districts of a large agricultural area. From the point of view of the cultivator, what is important is not rainfall as such, but the effects of rainfall upon the crop which may be raised from the land. Between rainfall and crop there will be a certain relation, the discovery of which will be a matter of practical importance. The objection to great inequality of rainfall is the resulting loss of potential crop. The objection to great inequality of incomes is the resulting loss of potential economic welfare.

Let us assume, as is reasonable in a preliminary discussion, that the economic welfare of different persons is additive, that the relation of income to economic welfare is the same for all members of the community, and that, for each individual, marginal economic welfare diminishes as income increases. Then, if a given income is to be distributed among a given number of persons, it is evident that economic welfare will be a maximum, when all incomes are equal. It follows that the inequality of any given distribution may conveniently be defined as the ratio of the total economic welfare attainable under an equal distribution to the total economic welfare attained under the given distribution. This ratio is equal to unity for an equal distribution, and is greater than unity for all unequal distributions. It may, therefore, be preferred to define inequality as this ratio minus unity, but for comparative purposes this modification of the definition is unnecessary. Inequality, however, though it may be *defined* in terms of economic welfare, must be *measured* in terms of income.

3. Starting from the above definition, it is clear that, if we assume any precise functional relation between income and economic welfare, we can deduce a corresponding measure of inequality. It is also clear that, under this procedure, no *one* measure of inequality will emerge, whose appropriateness will be independent of the particular functional relation assumed.

The procedure suggested may be illustrated by two

examples. Take, first, the hypothesis that proportionate additions to income, in excess of that required for "bare subsistence," make equal additions to economic welfare. This is Bernoulli's hypothesis, except that economic welfare is substituted for satisfaction.[1]

Then, if w = economic welfare and x = income, we have

$$dw=\frac{dx}{x},$$

or

$$w=\log x+c.$$

If $x_1, x_2, \ldots x_n$ are individual incomes, whose arithmetic mean is x_a and geometric mean x_g, the corresponding measure of inequality is, by our definition

$$\frac{n\log x_a+nc}{n\log x_g+nc}=\frac{\log x_a+c}{\log x_g+c}.$$

If we assume that, when $x=1$, $w=0$, then $c=0$, and our measure of inequality becomes $\frac{\log x_a}{\log x_g}$. It may, at first sight, be thought that a still simpler, and practically equivalent, measure will be $\frac{x_a}{x_g}$, but this simplification raises a question to which further reference will be made below.

The above hypothesis, however, is not satisfactory. Apart from the difficulty that only income in excess of that required for "bare subsistence" is taken into account, it is clear that too rapid a rate of increase of economic welfare is assumed, when income becomes large. After a certain point it is pretty obvious that more than proportionate additions to income will generally be required, in order to make equal additions to economic welfare. To be even tolerably realistic, a formula connecting income with economic welfare should satisfy the following conditions.

(1) Equal increases in economic welfare, at any rate after income is greater than a certain amount, should

[1] A discussion of the distinction, if any, between economic welfare and satisfaction lies outside the scope of this paper.

correspond to more than proportionate increases in income; (2) economic welfare should tend to a finite limit, as income increases indefinitely; (3) economic welfare should be zero for a certain amount of income, and negative for smaller amounts. These conditions are satisfied if we assume that the relation of economic welfare to income is of the form $dw=\frac{dx}{x^2}$, so that $w=c-\frac{1}{x}$, where c is a constant. For then, however large x becomes, w can never become larger than c, and, when x is less than $\frac{1}{c}$, w is negative.[1] If we adopt this formula, which appears to be a good compromise of its kind between plausibility and simplicity, the corresponding measure of inequality is

$$\frac{nc-\frac{n}{x_a}}{nc-\frac{n}{x_h}}=\frac{c-\frac{1}{x_a}}{c-\frac{1}{x_h}}$$

where x_h is the harmonic mean of the individual incomes, and c, as already stated, the reciprocal of the minimum income, which yields positive economic welfare.

Both the measures of inequality obtained above are simple in form and have a certain theoretical elegance. But neither is readily applicable to statistics. The arithmetic mean is, indeed, easily calculated from perfect statistics, and fairly easily approximated to from imperfect statistics, but the corresponding calculations for the geometric and harmonic means are very laborious when the number of individual incomes is large, and the corresponding approximations, especially for the harmonic mean, are practically impossible where the statistics show more than a small degree of imperfection. The first of the two measures, moreover, involves an estimate of the income necessary for "bare subsistence," and the

[1] If it were practicable to fix a unit of economic welfare, it would have to be fixed, in relation to the unit of income, so that both these attributes of c would hold good. There is no theoretical objection to this

second an estimate of the minimum income which yields positive economic welfare. And neither of these estimates are easily made. Nor, of course, have we really any precise knowledge of the functional relation between income and economic welfare.

4. Failing such precise knowledge, we may still lay down certain general principles, which shall serve as tests, to which various plausible measures of inequality may be submitted. We have, first, what may be called the principle of transfers. Maintaining the assumptions laid down in Section 2 above, we may safely say that, if there are only two income-receivers, and a transfer of income takes place from the richer to the poorer, inequality is diminished.[1] There is, indeed, an obvious limiting condition. For the transfer must not be so large as more than to reverse the relative positions of the two income-receivers, and it will produce its maximum result, that is to say, create equality, when it is equal to half the difference between the two incomes. And we may safely go further and say that, however great the number of income-receivers and whatever the amount of their incomes, any transfer between any two of them, or, in general, any series of such transfers, subject to the above condition, will diminish inequality.[2] It is possible that in comparing two distributions, in which both the total income and the number of income-receivers are the same, we may see that one might be able to be evolved from the other by means of a series of transfers of this kind. In such a case we could say with certainty that the inequality of the one was less than that of the other.

5. Let us now apply the principle of transfers to various measures of dispersion used by statisticians for measuring inequality in general. A distinction may be drawn between measures of relative dispersion and measures of absolute dispersion. Measures of relative dispersion will

[1] Compare Pigou, *Wealth and Welfare*, p. 24.

[2] Inequality is certain to be diminished by a series of transfers such that all transfers from *A*, the richer, to *B*, the poorer, still leave *A* richer than, or just as rich as, *B*. But if some of the transfers make *B* richer than *A*, it is possible that the effects of the series of transfers might cancel out and leave the inequality the same as before

be simply numbers, while measures of absolute dispersion will be, in the present case, numbers of units of income. Most of the general measures of dispersion proposed by statisticians are measures of absolute dispersion, but are easily transformed into measures of relative dispersion when divided by an appropriate divisor.

Consider first the mean deviation from the arithmetic mean. This measure is the sum of two parts, one of which comprises the deviations above, the other the deviations below, the mean.[1] It is a bad measure, judged by the principle of transfers, for it is unaffected by transfers within either part, provided that no income previously above the mean is reduced below it, and conversely. The transfer of a given sum from incomes above the mean to incomes below it, as, for example, by the provision of old age pensions for persons of small incomes from the proceeds of a tax on large incomes, would obviously reduce the mean deviation. But it would be unaffected if such pensions were provided by a tax levied on those whose incomes were just below the mean, or if additional comforts for millionaires were provided from a tax on those whose incomes were just above the mean, provided that none of the latter were reduced below the mean by the tax.

The mean deviation is a measure of absolute dispersion. If we divide it by the arithmetic mean, we obtain what we may call the relative mean deviation, which is equally insensitive to transfers wholly above or wholly below the mean.

Consider next the standard, or mean square, deviation from the arithmetic mean, *i.e.*, the square root of the arithmetic average of the squares of deviations from the arithmetic mean. The standard deviation is perfectly sensitive to transfers,[2] and thus passes our first test with

[1] Thus, if S_1 is the sum of the deviations of income greater than the mean and S_2 the sum of the deviations of incomes less than the mean, the mean deviation $= \frac{1}{n}(S_1 + S_2)$, where n is the total number of incomes.

[2] For, if δ be the initial standard deviation of any distribution of n incomes, and δ' the standard deviation after an amount h has been transferred from an income x_1 to an income x_2, all other incomes remaining the same, we have $n^2(\delta^2 - \delta'^2) = 2h(x_1 - x_2) - 2h^2$. Therefore $\delta = \delta'$ only if $h = 0$ or if $h = x_1 - x_2$.

distinction. Dividing the standard deviation by the arithmetic mean, we obtain what may be called the relative standard deviation. This, too, is perfectly sensitive to transfers.

Consider next Professor Bowley's quartile measure of dispersion, $\frac{Q_3 - Q_1}{Q_3 + Q_1}$, where Q_1 and Q_3 are quartiles.[1] This is a measure of relative dispersion. It is sensitive to transfers, in so far as these involve movements of the quartiles, but not otherwise. In this respect it is somewhat more sensitive than the mean deviation, but much less sensitive than the standard deviation.

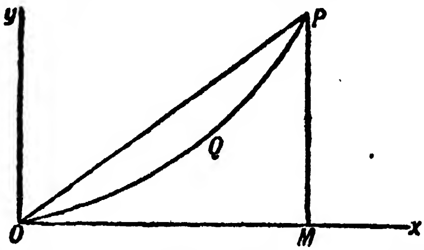
An interesting measure of dispersion, which has not, I think, hitherto attracted the attention of English writers, is Professor Gini's mean difference, which, as applied to incomes, is the arithmetic average of the differences, taken positively, between all possible pairs of incomes.[2] It may be shown that this mean difference is equal to the weighted arithmetic mean of deviations from the median, the weights being proportionate to the number of incomes, increased by one, which are intermediate in size between the median and the income whose deviation is being considered.[3] The mean difference, thus defined, is a measure of absolute dispersion. Dividing it by the arithmetic mean, we obtain a measure of relative dispersion, which may be called the relative mean difference. The mean difference, whether absolute or relative, is perfectly sensitive to transfers.

Another interesting measure of inequality is based upon what some writers have called a Lorenz curve.[4] (See next page). This is a simple and convenient graphical method of exhibiting any distribution of income, provided that our interest is confined to proportions, rather than

[1] Compare Bowley, *Elements of Statistics*, p. 136.
[2] See, for a discussion of this measure, Gini, *Variabilità e Mutabilità*.
[3] Gini, *ibid.*, pp. 32–3.
[4] Originally proposed by Mr. M. O. Lorenz, *Publications of the American Statistical Association* (1907), Vol. IX, pp. 209 ff. M. Séailles also recommended it, apparently independently, in 1910 in his *Répartition des Fortunes en France*, pp. 56–7. Sir Leo Chiozza Money had already given hints of this measure in his *Riches and Poverty*, first published in 1905.

absolute amounts, both of total income and of the number of income-receivers.

Along the axis Ox are measured percentages of the total income, and along the axis Oy the minimum percentages of the total number of income-receivers, who receive various percentages of the total income. For example, if the richest 20 per cent. of the population received 75 per cent. of the total income, this fact would determine one point ($x=75$, $y=20$), upon the Lorenz curve. A perfectly equal distribution would be represented by the straight line OP inclined at an angle of 45° to either axis. An unequal distribution would be represented by a curve, such as OQP, lying below the line OP. If MP is perpendicular to OM, $OM=MP=100$, and an



obvious measure of inequality is the area enclosed between the Lorenz curve and the line of equal distribution OP. The larger this area, the larger the inequality.

A remarkable relation has been established between this measure of inequality and the relative mean difference, the former measure being always equal to half the latter.[1]

Something will be said below concerning Professor Pareto's well-known measure of the inequality of incomes. But this measure cannot be tested, with reference to the principle of transfers, since it is based upon a supposed law, according to which, if the total income and the number of income-receivers are known, the distribution is uniquely determined.

[1] For a mathematical proof of this, see Ricci, *L'Indice di Variabilità*, pp. 22–4. The proof was first given, apparently, by Professor Gini. Another most elegant proposition, due to Professor Ricci (*ibid.*, pp. 32–3), is that, if any straight line be drawn parallel to the line of equal distribution, then all the Lorenz curves, to which this straight line is a tangent, represent distributions having the same relative mean deviation.

6. So far, then, as tested by the principle of transfers,. the standard deviation, whether absolute or relative, and the mean difference, whether absolute or relative, are good measures; Professor Bowley's quartile measure is a very indifferent measure; the mean deviation, whether absolute or relative, is a bad measure; and Professor Pareto's measure evades judgment. But the scope of the principle of transfers, as a test of measures of inequality, is narrowly limited. It can only be applied to some cases —and by no means to all—in which both the total income and the number of income-receivers are constant, and distribution varies.[1] It cannot be applied when either the total income or the number of income-receivers varies, or when both vary simultaneously. For these more general cases further tests are required, and three general principles suggest themselves as serviceable for this purpose.

7. We have, first, what may be called the principle of proportionate additions to incomes. It is sometimes suggested that proportionate additions to, or subtractions from, all incomes will leave inequality unaffected.[2] But, if the definition of inequality given above be accepted, this is not so. It appears, rather, that proportionate additions to all incomes diminish inequality, and that proportionate subtractions increase it. This is the

[1] Professor Pigou (*Wealth and Welfare*, p. 25 n.) uses the followig argument to prove that, in these circumstances, a reduction in the standard deviation will probably increase aggregate satisfaction. "If A be the mean income and a_1, a_2, . . . deviations from the mean, aggregate satisfaction, on our assumption,

$$=nf(A)+(a_1+a_2...)\ f'+\frac{1}{2\,!}(a_1^2+a_2^2+...)\ f''+\frac{1}{3\,!}(a_1^3+a_2^3+...)\ f'''+...$$

But we know that $a_1+a_2+...=0$. We know nothing to suggest whether the sum of the terms beyond the third is positive or negative. If, therefore, the third and following terms are small relatively to the second term, it is certain, and, in general, it is probable that aggregate satisfaction is larger, the smaller is $(a_1^2+a_2^2+...)$. This latter sum, of course, varies in the same sense as the ... standard deviation." This argument would be strong, if all deviations were small, *i.e.*, if inequality were already very small. But when, as is the case in all important modern communities, a number of the deviations is very large, it is quite likely that successive terms in the expansion will go on increasing (numerically) for some time, and this is specially likely as regards the series of alternate terms, which involve deviations raised to *even* powers. This likelihood will vary according to the form of the function f, but it seems clear that the third and following terms cannot, in general, be neglected. It follows that, in general, there is no certainty and only a somewhat low and problematical degree of probability, that a reduction in the standard deviation will increase satisfaction. There is no reason to suppose tha it is not at least equally probable that a reduction in certain other measures of dispersion will have the same effect. One good test of the relative appropriateness of various measures of the inequality of incomes would be the relative probability that a reduction in such measures would increase economic welfare (or satisfaction), on the assumption that both the total income and the number of income-receivers were constants. But the evaluation of such relative probabilities presents difficulties.

[2] See, *e.g.*, Taussig, *Principles of Economics*, II, p. 485.

principle of proportionate additions to incomes just referred to. A general proof of this principle presents difficulties, and is not attempted here, but the proof in two important special cases is easy. For, first, assume, using the same notation as in Section 3 above, that the relation of income to economic welfare is $w = \log x$. Then, if δ be the inequality of any given distribution, we have

$$\delta = \frac{\log x_a}{\log x_g}$$

Let all incomes be multiplied by θ and let δ' be the inequality of the new distribution.

Then $\delta' = \dfrac{\log\ \theta + \log x_a}{\log \theta + \log\ x_g}$, and, since $x_a > x_g$, we have $\delta > \delta'$, if $\log \theta > 0$, that is to say, if $\theta > 1$.

Similarly, $\delta < \delta'$, if $\theta > 1$.

That is to say, proportionate additions to all incomes diminish inequality and proportionate subtractions increase it.[1] This is true, if x is the total income of any individual. *A fortiori*, it is true, if x is surplus income in excess of "bare subsistence." For equal proportionate additions to surplus income involve larger proportionate additions to total income, when the latter is large, than when it is small. A series of transfers from richer to poorer will, therefore, transform proportionate additions to surplus incomes into proportionate additions to total incomes.

Next assume that the relation of income to economic welfare is $w = c - \dfrac{1}{x}$. Then if δ be the inequality of any given distribution, we have $\delta = \dfrac{c - \dfrac{1}{x_a}}{c - \dfrac{1}{x_h}}$

Let all incomes be multiplied by θ and let δ' be the inequality of the new distribution.

[1] If we write $\delta = x_a/x_g$, instead of $\delta = \log x_a/\log x_g$, proportionate additions or subtractions will leave inequality unaffected. It follows that x_a/x_g is not a mere simplification of the measure $\log x_a/\log x_g$ arrived at in section 3 above, but is a distinct, and inferior, measure.

$$\text{Then } \delta' \doteq \frac{c - \dfrac{1}{\theta x_a}}{c - \dfrac{1}{\theta x_h}}, \text{ and we have, } \delta > \delta', \text{ if } (x_a - x_h)(\theta - 1) > 0.$$

But $x_a > x_h$, $\therefore \quad \delta > \delta'$, if $\theta > 1$.

Similarly, $\delta < \delta'$, if $\theta < 1$.

That is to say, proportionate additions to all incomes diminish inequality, and proportionate subtractions increase it.

8. If the principle of proportionate additions to incomes thus enunciated be provisionally accepted as true generally, and not merely for the particular hypotheses just examined, a second principle follows as a corollary.[1] This may be called the principle of equal additions to incomes, and is to the effect that equal additions to all incomes diminish inequality and equal subtractions increase it. Here, again, a direct general proof presents difficulties, though several writers have regarded the principle as so obvious that no proof is required.[2] But as a corollary of the preceding principle the proof is easy. For, let the total additional income involved in proportionate additions to all incomes be redistributed among income-receivers in such a way as to make equal, instead of proportionate, additions to all incomes. Then the addition to maximum economic welfare attainable is the same in both cases. But the addition to economic welfare actually attained is obviously greater when additions to incomes are equal than when they are proportionate. Therefore, inequality is smaller after equal additions have been made than after proportionate additions have been made, the total additional income being the same in both cases. But proportionate additions reduce inequality. Therefore, *a fortiori*, equal additions reduce inequality.[3]

[1] The additions must, of course, be genuine. Inequality in this country would not be diminished by reckoning everyone's income in shillings, instead of in pounds. Units of money income in any two cases to be compared must have approximately equal purchasing power.

[2] "An equal addition to everyone's income . . . obviously makes incomes more equal than they would otherwise be." Cannan, *Elementary Political Economy*, p. 137. See also Loria, *La Sintesi Economica*, p. 369.

[3] Or alternatively, the total additional income being given, a distribution involving equal additions to all incomes may be evolved from a distribution involving proportionate additions to all incomes by means of a series of transfers from richer to poorer.

9. The third principle may be called the principle of proportionate additions to persons, and is to the effect that inequality is unaffected if proportionate additions are made to the number of persons receiving incomes of any given amount. This, again, is easily proved. For the maximum economic welfare attainable and the economic welfare actually attained will both have been increased in the same proportion, and hence their ratio will be unaltered.

10. We may now test, by means of these three principles, the measures of inequality which have already been tested by means of the principle of transfers. Simple mathematical operations yield the following results :—

Upon :	Proportionate Additions to Incomes.	Effect of Equal Additions to Incomes.	Proportionate Additions to Persons.
Absolute Mean Deviation ...	Increased	Unchanged	Unchanged
Relative Mean Deviation ...	Unchanged	Diminished	Unchanged
Absolute Standard Deviation	Increased	Unchanged	Unchanged
Relative Standard Deviation	Unchanged	Diminished	Unchanged
Bowley's Quartile Measure ...	Unchanged	Diminished	Unchanged
Absolute Mean Difference ...	Increased	Unchanged	Unchanged
Relative Mean Difference ...	Unchanged	Diminished	Unchanged

Here the three absolute measures of dispersion give one set of identical results, and the four relative measures another. None of the seven measures pass the test of proportionate additions to incomes, but the relative measures come nearer to doing so than the absolute measures.[1] The relative measures pass the test of equal additions to incomes, but the absolute measures do not. All seven measures pass the test of proportionate additions to persons. We may therefore eliminate the three absolute measures from further consideration. As between the four relative measures, the order of merit established by reference to the principle of transfers may stand, so far, unchanged, viz. :—

1. and 2. Relative standard deviation and relative mean difference (bracketed equal)
3. Bowley's quantity measure.
4. Relative mean deviation.

[1] It should be noticed that, if we are comparing the inequality of two distributions by means of a measure which is unchanged by proportionate additions to incomes, it is not

11. Can Professor Pareto's measure be brought into this order of meiit? This is a relative measure, which is only applicable when distribution is approximately of the form $A = \frac{y}{x^a}$, where x is any income, y the number of incomes greater than x, and A and a constants for any given distribution, but variables for different distributions.[1] Assuming this formula for distribution, which, as Professor Bowley has shown,[2] is the same thing as assuming that the average of all incomes greater than x is proportional to x, Professor Pareto treats a as the measure of inequality, in the sense that, the greater a, the greater inequality. It follows mathematically that "neither an increase in the minimum income nor a diminution in the inequality of incomes can come about, except when the total income increases more rapidly than the population."[3] In other words, increased production per head is both a necessary condition and a sufficient guarantee of a diminution of inequality.

Professor Pareto's law, about which much has been written both by way of criticism and of qualified appreciation, implies a uniformity in distribution, which makes it impossible to apply either the principle of transfers or the principle of equal additions to incomes. Like the four other measures just considered, it is unchanged both by proportionate additions to incomes and by proportionate additions to persons. It has been suggested[4] that this measure, where it is applicable, will be in general accord with other plausible measures of dispersion. But, in view of the investigations of Italian economists,[5]

necessary that the unit of money income in the two distributions should have approximately the same purchasing power.

[1] Compare Pareto, *Cours d'Economie Politique*, II, pp. 305 ff., and *Manuel d'Economie Politique*, pp. 391 ff.

[2] *Measurement of Social Phenomena*, p. 106.

[3] *Cours*, II, pp. 320–1.

[4] See, *e.g.*, Pigou, *Wealth and Welfare*, pp. 25 and 72.

[5] See Bresciani, *Giornale degli Economisti*, August, 1905, pp. 117–8, and January, 1907, pp. 27–8, Ricci, *L'Indice di Variabilità*, pp. 43–6, Gini, *Variabilita*, p. 65 and pp. 70–1. Compare also Persons, *Quarterly Journal of Economics*, 1908–9, pp. 420–1, and Benini, *Principii di Statistica Metologica*, p. 187. Professor Benini inverts Professor Pareto's measure, but apparently without realising that he has done so.

this is very doubtful. It seems on the whole more likely, though the question requires further study, that, in order to bring it into general accord with other measures, the Pareto measure should be inverted, so that, the greater a, the smaller inequality. But such an inversion will explode Professor Pareto's alleged economic harmonies and it will follow, according to his law, that increased production per head will always mean increased inequality!

According to Professor Gini,[1] many actual distributions of income approximate to the formula

$$n=\frac{1}{c}s^{\delta}, \text{ or } \log n=\delta \log s-\log c,$$

where s is the total income of the n richest income-receivers and δ and c are constants for any given distribution. He proposes δ as a measure of inequality, or "index of concentration," as he prefers to call it, such that, the greater δ, the greater inequality. This formula is a more convenient variant of Professor Pareto's, such that $\delta=\frac{a}{a-1}$, and, as a diminishes from any quantity greater than one down to one, δ increases up to infinity.

The equation $\log n=\delta \log s-\log c$ is easily transformed into that of a Lorenz curve. For, if N is the total number of income-receivers and S the total income, we have

$$\log N=\delta \log S-\log c,$$

$$\therefore \qquad \log\frac{n}{N}=\delta \log\frac{s}{S}.$$

Putting $\frac{n}{N}=\frac{y}{100}$ and $\frac{s}{S}=\frac{x}{100}$, we have the equation of a Lorenz curve, $\log\frac{y}{100}=\delta \log\frac{x}{100}$,

or

$$\frac{y}{100}=\left(\frac{x}{100}\right)^{\delta}.$$

The area enclosed between this Lorenz curve and the line of equal distribution is

[1] *Ibid.*, pp. 72 ff.

$$\tfrac{1}{2}(100)^2 - \int_{x=0}^{x=100} y\,dx$$

$$= \tfrac{1}{2}(100)^2 - \int_0^{100} 100 \frac{x^\delta}{(100)^\delta}\,dx$$

$$= (100)^2 \left(\tfrac{1}{2} - \frac{1}{\delta+1}\right).$$

Thus, the greater δ, the larger is the above area, and the larger the relative mean difference.[1] There is thus some ground for believing, though I do not here definitely commit myself to the belief, that *the reciprocal* of Professor Pareto's measure is a mere variant of the relative mean difference, in the particular case when distribution is approximately according to Pareto's law. In this particular case, then, Professor Pareto's measure would have no independent significance, and, in the more general case, when distribution may depart widely from Pareto's law, the measure has, of course, no general significance at all. It will, therefore, be provisionally set aside in this discussion.

12. Returning to the four measures set out in order of merit at the end of Section 10, this order is based on theoretical advantages. But account must also be taken of practical applicability to statistics. Both the relative mean deviation and the quartile measure are more easily applicable than either of their two rivals to perfect statistics, and applicable, with less risk of serious error, to imperfect statistics. As regards perfect, or nearly perfect, statistics, the advantage of the former pair over the latter relates only to laboriousness and not to accuracy, and is not, therefore, a matter of great importance. But, as regards markedly imperfect statistics, such as are actually

[1] This index δ has been used by several Italian writers in enquiries into distributions of income. See, *e.g.*, Savorgnan, *La Distribuzione dei Redditi nelle Provincie e nelle Grandi Città dell' Austria*, and Porru, *La Concentrazione della Ricchezza nelle Diverse Regioni d'Italia.*

available, the advantage relates to accuracy as well as to laboriousness and is, therefore, vital.

The provisional conclusion which suggests itself, is as follows. When statistics are so imperfect that neither the relative standard deviation nor the relative mean difference can be applied with any expectation of reasonable accuracy, we must make shift with the relative mean deviation and the quartile measure. It is some palliation of the comparative insensitiveness to transfers which is a defect of both the latter measures, that each is sensitive to many possible transfers, to which the other is insensitive. If, therefore, both give the same result in any particular comparison, their evidence is to some extent corroborative.

If statistics are so far improved that the relative standard deviation and the relative mean difference are applicable, these are to be preferred to the two measures just mentioned. If a single measure is to be used, the relative mean difference is, perhaps, slightly preferable, owing to the graphical convenience of the Lorenz curve. Probably, however, it will be desirable, at any rate for some time to come, not to rely upon the evidence of a single measure, but upon the corroboration of several. Given perfect, or nearly perfect, statistics, it is worth while considering whether corroboration may not also be sought from the measure $\frac{\log x_a}{\log x_g}$, applied, for the sake of simplicity, to total incomes, and not to surplus incomes in excess of the requirements of "bare subsistence." For this measure passes our test of proportionate additions to incomes, which none of the other four survivors do. In most practical cases, no doubt, these five measures will give results pointing in the same direction, but in some cases they may not do so.

Meanwhile, the chief practical necessity is the improvement of existing statistical information, especially as regards the smaller incomes. This paper may be compared to an essay in a few of the principles of brickmaking. But, until a greater abundance of straw is forthcoming, these principles cannot be put to the test of practice.